

# Securing Afghanistan's Future: Accomplishments and the Strategic Path Forward

## Health and Nutrition Technical Annex



**January 2004**

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**GLOSSARY OF TERMS**

|              |  |
|--------------|--|
| ADB          | Asian Development Bank                                 |
| AFP          | Acute Flaccid Paralysis                                |
| AIDS         | Acquired Immunodeficiency Syndrome                     |
| ANHRA (NHRA) | Afghanistan National Health Resources Assessment       |
| AREU         | Afghan Research and Evaluation Unit                    |
| BHC          | Basic Health Centre                                    |
| BFHI         | Baby Friendly Hospital Initiative                      |
| BPHS         | Basic Package of Health Services                       |
| CBHC         | Community Based Health Care System                     |
| CHC          | Comprehensive Health Centre                            |
| CHW          | Community Health Worker                                |
| CDC          | Centre of Disease Control                              |
| CMH          | Commission on Macroeconomics and Health                |
| CSO          | Central Statistics Office                              |
| CGHN         | Consultative Group for Health and Nutrition            |
| CGH WG       | Consultative Group for Health Working Group            |
| DDM          | National Department of Disaster Management             |
| DOTS         | Directly Observed Tuberculosis Treatment               |
| DPT          | Diphtheria-Poliomyelitis-Tetanus vaccine               |
| EC           | European Commission                                    |
| ECOSOC       | Economic and Social Council                            |
| EMRO         | Eastern Mediterranean Regional Office (WHO)            |
| EPI          | Expanded Programme on Immunization                     |
| EPR          | Emergency Preparedness and Response                    |
| FTE          | Full Time Employee                                     |
| GCMU         | Grant and Contract Management Unit                     |
| GDP          | Gross Domestic Product                                 |
| HIV          | Human Immunodeficiency Virus                           |
| ICRC         | International Committee of the Red Cross               |
| IDA          | International Dispensary Association (Amsterdam)       |
| IDA          | International Development Association                  |
| IDP          | Internally Displaced Person                            |
| HIS          | Institute of Health Sciences (formerly IMEI)           |
| ITN          | Insecticide Treated Bed Net                            |
| MAAH         | Ministry of Agriculture and Animal Husbandry           |
| MCH          | Mother and Child Health                                |
| MD           | Medical Doctor   |
| MDD          | Micro nutrition Deficiency Disease                     |
| MDG          | Millennium Development Goal                            |
| MoF          | Ministry of Finance                                    |
| MoH          | Ministry of Health                                     |
| MMR          | Maternal Mortality Ratio                               |
| MMRD         | Ministry of Rural Rehabilitation and Development       |
| MICS         | Multi Indicator Cluster Survey                         |
| NIDs         | National Immunization Days                             |
| NSP          | National Solidarity Programme                          |
| OECD         | Organization for Economic Co-operation and Development |

|        |  |
|--------|--|
| PCC    | Provincial Coordination Committee                  |
| PHO    | Provincial Health Office                           |
| PHLO   | Provincial Health Liaison Office                   |
| PRR    | Priority Reform and Restructuring                  |
| SFU    | Supplementary Feeding Unit                         |
| SIA    | Special Immunization Activities                    |
| STH    | Soil Transmitted Helminthes                        |
| STI    | Sexually Transmitted Infection                     |
| TA     | Technical Assistance                               |
| TB     | Tuberculosis                                       |
| TBA    | Traditional Birth Attendant                        |
| TFU    | Therapeutic Feeding Unit                           |
| TISA   | Transitional Islamic State of Afghanistan          |
| TT     | Tetanus Toxoid                                     |
| U5MR   | Under Five Mortality Rate                          |
| UN     | United Nations                                     |
| UNAIDS | Joint United Nations Programme on HIV/AIDS         |
| UNICEF | United Nations Children's Fund                     |
| UNFPA  | United Nations Fund for Population Activities      |
| USAID  | United States Agency for International Development |
| VCT    | Voluntary Counselling and Treatment                |
| WB     | World Bank   |
| WCBA   | Women of Child Bearing Age                         |
| WFP    | United Nations World Food Programme                |
| WHO    | World Health Organization                          |

# 1 Executive Summary<sup>1</sup>

## A. Current Status & Accomplishments

1. **Historical Background:** Afghanistan suffered from very high mortality and morbidity even before the Soviet invasion of 1979. The under-five mortality rate in 1960, estimated at 360 per 1,000 live births, was 30% higher than the average of the least developed countries at the time. Twenty three years of war meant that little progress was made in improving health service delivery and the coming of the Taliban worsened an already difficult health situation. Girls and women had very limited access to services since most women health workers were not allowed to work. From 1990 to 2002 the under-five mortality rate hardly changed and Afghanistan is today where most developing countries were 40 years ago.
2. **Current Health Status:** While on-going efforts are contributing to some progress in improving health status, the overall situation remains grim. The under-five mortality rate is now 257 and the infant mortality rate is 165, the highest in Asia and very high compared to other developing countries. The maternal mortality ratio, estimated at 1,600 per 100,000 live births is also very high and reflects the low status of women, poor infrastructure, and a barely functioning curative health care system. The rate of chronic malnutrition (moderate and severe stunting) remains around 50% reflecting a combination of poor caring practices, micronutrient deficiency, and chronic food insecurity. Most of the burden of disease results from infectious causes, particularly among children where diarrhoea, acute respiratory infections, and vaccine preventable illnesses likely account for 60% of deaths. Among adults, tuberculosis accounts for an estimated 15,000 deaths per year with 70% of detected cases being among women.
3. **Current Health Service Delivery:** Most of the Afghan population does not have access to the basic services that could make a large difference to their health. For example, routine immunization coverage (DPT3) is estimated to be only 30% and even this may overstate the reality. Forty percent of existing health facilities do not have female staff, which means that women are very unlikely to access those facilities. More than 80% of what services do exist is provided by Non Governmental Organizations (NGOs).
4. **Accomplishments:** Through successful mass vaccination, the Ministry of Health and its partners have been able to reduce the number of confirmed polio cases in 2003 to 7 in the whole country, a remarkable improvement from the situation in 1997 in which polio caused more disability than land mine injuries. A measles mortality reduction campaign reached more than 90% of children 6 months to 12 years of age resulting in the saving of an estimated 30,000 lives. In addition to leading these activities, the Ministry of Health has taken on a stewardship role in the sector and has developed and communicated a coherent Interim Health Strategy (2002 – 2004), helping to ensure that disparate partners focus on national strategic priorities such as delivering basic health services to the majority of Afghans who live in rural areas, rather than building high visibility, but low impact, tertiary care hospitals.

## B. Key Issues and Constraints (Including Cross-Cutting Issues)

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<sup>1</sup> All advisors in the Ministry including Dr. Sherzai (MoH), Dr. Feroz (MoH), Dr. Stanekzai (MoH), Gyuri Fritsche (MSC - Consultant), Heike Bill (EC), Paul Fishstein (MSH), Dr. Ahmad Jan, Dr Chris Hirabayashi (UNICEF), Peter Salama (UNICEF), Dr. Majeed (UNICEF), Kayhan Natiq (World Bank), Ben Loevinsohn (World Bank), William Newbrander (MSH), Mike Taylor (OPML), and Omar Noman (UNDP) – others too numerous to mention.

5. **Key Health Sector Issues:** Within the sector, the most important constraint to improving health status is lack of access to basic health services in much of the country. Even simple and effective interventions, such as routine immunization, are only slowly becoming available. The major constraints to improving service delivery are: (i) inadequate number female health staff in rural areas; (ii) shortage of skilled health staff in rural areas generally; (iii) lack of managerial capacity particularly at provincial level; and (iv) managerial and organizational structures that do not provide incentives or accountability for results.

6. **Cross-Cutting Issues:** There are many important cross-cutting issues that impede improvements in health status including: (i) lack of physical security and respect of human rights; (ii) low status of women; (iii) lack of physical infrastructure including rural roads, electricity, improved water supplies, and sanitation systems; (iv) low levels of education, particularly female education; and (v) narcotics and their pervasive effect on health.

#### C. Strategic Vision, Goals, and Key Priorities

**Deliver Basic Package of Health Services (BPHS) to All Afghans:** The Government has committed itself to ensuring that the BPHS (a package of services covering maternal and newborn health, child health and immunization, public nutrition, and communicable disease control) is delivered to all Afghans, regardless of where they live, their ethnicity, or gender, in the next 3-7 years. The approach has been the key priority in the sector, is agreed to by almost all stakeholders, and continues to be compelling. The Government will continue to pursue this overarching goal as its first priority, as a means to provide a peace dividend to Afghans, and achieve the Millennium Development Goals (MDGs).

The following two MDGs will be aimed at: Target 5; reduce by two thirds, between 1990 and 2015, the under-five mortality rate and target 6; reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.

While implicit in ensuring the delivery of the BPHS, the Government is committed to reducing inequity in the availability and utilization of health services and will continue to track this by gender, locale, and socio-economic status. Once the current content of the BPHS has been successfully delivered to all Afghans, the Government intends to broaden the scope of the BPHS to include additional services such as mental health, community care for the disabled, and prevention of HIV/AIDS. This will likely be implemented in 7 years but could begin earlier if rapid progress on BPHS delivery is achieved.

7. **Special Programs:** Ensuring the nation-wide delivery of the BPHS will take at least 3 years, and in the mean time the Government will continue to strengthen the vertical programmes and campaigns that ensure blanket coverage of simple but effective interventions such as salt iodination, polio, measles, and tetanus immunization, and vitamin A distribution.

8. **Human Resource Development:** The Government will ensure that every health facility in the country has sufficient female staff and that all staff is properly trained and independently certified to have the skills and knowledge required to deliver high quality health services.

9. **Improve Quality of Hospital Services while Maintaining Centrality of BPHS:** Without compromising the delivery of the BPHS, the Government intends in 3 to 7 years to considerably strengthen the quality of hospital services with priority being given to services such as emergency obstetrical care and trauma management.

**10. Administrative Reform & Capacity Building:** The Government is committed to rigorously testing and evaluating managerial and organizational reforms to improve health service delivery. These reforms will address issues of accountability and incentives for results. Driven by what works rather than ideology, the Government will find productive means to work with the private and NGO sectors. The capacity of Afghans to manage health services will be substantially strengthened with the aim, in 7 years and certainly by 2015, of replacing all expatriates with properly trained Afghans.

#### **D. Costing of the Health Program**

| Sub-program  | Indicators  | Est'd Funding requirements to 2006 (M 2003 US\$)        | Est'd Funding Gap to 2006 (M 2003 US\$)                 | Est'd Funding requirements to 2015 (M 2003 US\$)                                      |
|--|---|---|---|---|
| 1. Delivery of BPBS <sup>2</sup>   | 1. Percentage of population covered by BPBS   | 323.01  | 178.83  | 1,519.96  |
| 2. Special Programs<br><br>a. EPI<br>b. Malaria/Leishm.<br>c. Public Nutrition<br>d. Tuberculosis<br>e. Emergency preparedness and response<br>f. HIV/AIDS | <u>a. EPI</u><br>a.1 Number of Polio cases in Afghanistan<br>a.2 Number of neonatal tetanus cases per 1,000<br>a.3 Number of deliveries conducted by trained birth attendants<br>a.5 Number of sentinel sites report that report measles cases<br>a.6 Active surveillance of measles cases in all the fixed facilities<br>a.7 Number of fully immunized children with all antigens<br><br><u>b. Malaria/Leishmaniasis</u><br>b.1 % of the of health facilities reporting no disruption of stock of anti-malarial drugs for more than one week during the previous three months<br>b.2 % of health facilities able to confirm malaria diagnosis according to the national policy | <b>Total</b><br><b>40.57</b><br><br><b>EPI</b><br>22.97 | <b>Total</b><br><b>40.57</b><br><br><b>EPI</b><br>22.97 | <b>Total</b><br><b>157.92</b><br><br><b>EPI</b><br>66.17<br><br><b>Malaria</b><br>3.2 |

<sup>2</sup> Including the construction program for CHCs, BHCs and first level referral Hospitals

| Sub-program | Indicators   | Est'd Funding requirements to 2006<br>(M 2003 US\$)  | Est'd Funding Gap to 2006<br>(M 2003 US\$)   | Est'd Funding requirements to 2015<br>(M 2003 US\$)  |
|-------------|--|--|--|--|
|             | <p>b.3 % of patients with uncomplicated malaria getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms in target areas</p> <p><u>c. Public Nutrition</u></p> <p>c.1 Number of Salt Iodizing Factories</p> <p>c.2 Access to iodized salt</p> <p>c.3 Number of millers fortifying wheat according to required quality</p> <p>c.4 Consumption of fortified wheat or other products</p> <p>c.5 Number of TFU training centres (provincial level) within MoH using protocols</p> <p>c.6 Number of district level training centres (operated by BPHS) using protocols</p> <p>c. 7 Number of Hospitals adhering to BFHI standards</p> <p>c.8 Coverage of target population by Vitamin A, iron/folic and zinc supplements distributed through campaigns</p> <p><u>d. Tuberculosis</u></p> <p>d.1 Availability of DOTS throughout the country</p> <p>d.2 Quality of DOTS provision</p> <p><u>e. Emergency preparedness and</u></p> | <p><u>Pub. Nutrition</u><br/>2.13</p> <p><u>TB</u><br/>3.92</p> <p><u>EPR</u><br/>2.12</p> | <p><u>P. Nutrition</u><br/>2.13</p> <p><u>TB</u><br/>3.92</p> <p><u>EPR</u><br/>2.12</p> | <p><u>Pub. Nutrition</u><br/>12.41</p> <p><u>TB</u><br/>20.24</p> <p><u>EPR</u><br/>7.99</p> |

| <b>Sub-program</b>                      | <b>Indicators</b>  | <b>Est'd Funding requirements to 2006<br/>(M 2003 US\$)</b> | <b>Est'd Funding Gap to 2006<br/>(M 2003 US\$)</b> | <b>Est'd Funding requirements to 2015<br/>(M 2003 US\$)</b> |
|---|--|---|--|---|
|   | <p><u>response</u></p> <p>e.1 Strengthening of emergency preparedness, mitigation and response activities: Number of trained people, developed/adapted guidelines and standards</p> <p>e.2 Information dissemination and public awareness enhancement on Disaster Management (natural and man-caused disasters and epidemic prone diseases)</p> <p><u>f. HIV/AIDS</u></p> <p>f.1 To expand the knowledge base in order to facilitate planning, implementation and evaluation of STI/HIV/AIDS programmes</p> <p>f.2 Establish safe blood transfusion services in all national and provincial hospitals</p> <p>f.3 Establish anonymous VCT (voluntary counselling and testing) centres</p> <p>f.4 Establish STI/HIV control, care, and support service systems</p> | <u>HIV/AIDS</u><br>6.23                                     | <u>HIV/AIDS</u><br>6.23                            | <u>HIV/AIDS</u><br>37.18                                    |
| 3. Improve Quality of Hospital Services | <p>1. Case Fatality Rate for Obstetric Procedures</p> <p>2. Bed per 1,000 population in Provinces</p> <p>3. Bed per 1,000 population in Kabul</p> <p>4. Medical Doctor to Bed ratio in Kabul</p> <p>5. Medical Doctor to Paramedical staff ratio in Kabul</p>  | <b>82.53</b>  | <b>82.53</b>                                       | <b>279.87</b>   |

| Sub-program                                  | Indicators  | Est'd Funding requirements to 2006 (M 2003 US\$)  | Est'd Funding Gap to 2006 (M 2003 US\$)   | Est'd Funding requirements to 2015 (M 2003 US\$)  |
|--|---|---|---|---|
| 4. Human Resource Development                | <u>a. IHS</u><br>a.1 Percentage of BHCs staffed with midwives<br>a.2 Percentage of CHCs staffed with midwives<br><br><u>b. Continuous Education</u><br>b.1 Number of trainees that enrolled in continuous education   | <b>39.02</b>  | <b>39.02</b>  | <b>154.06</b>   |
| 5. Administrative Reform & Capacity Building | <u>a. Administrative Reform</u><br>a.1 Number of MoH employees employed in Kabul<br>a.2 Number of MoH employees employed in the Central MoH<br>a.3 Number of MoH employees employed in Public Administration<br>a.4 Number of MoH employees employed in Kabul Hospitals<br>a.5 Number of MoH employees on the payroll<br>a.6 Percentage of allocated budget expended at the Provincial Health Offices<br><br><u>b. Capacity Building</u><br>b.1 Number of TA made available versus requested<br>b.2 The average length of contract for a TA | <b>Admin Reform<sup>3</sup></b><br><b>12.11</b><br><br><b>MoH recurrent budget<sup>4</sup></b><br><b>22.90</b><br><br><b>TA</b><br><b>55.67</b> | <b>Admin Reform</b><br><b>9.98</b><br><br><b>MoH rec. budget</b><br><b>22.90</b><br><br><b>TA</b><br><b>55.67</b> | <b>Admin Reform</b><br><b>54.37</b><br><br><b>MoH rec. budget</b><br><b>52.55</b><br><br><b>TA</b><br><b>152.37</b> |
|  | <b>TOTAL</b>  | <b>575.81</b>   | <b>429.50</b>   | <b>2,371.10</b>   |

<sup>3</sup> This item consists of Central and Provincial MoH administrative staff that is enrolled in the Priority Reform and Restructuring process.

<sup>4</sup> MoH staff will be employed in the Secondary and Tertiary Hospitals and the Intermediate Medical Institutions. In addition, MoH staff will be employed by NGOs implementing the BPHS. However, as the overall majority of MoH staff (11,000 out of 18,000-ish) is stationed in Kabul, there will be MoH staff on the payroll that cannot be redistributed to other MoH positions in Afghanistan. This 'MoH recurrent budget' therefore starts with all MoH staff on the payroll on their current salary levels in 2003/1382, and a decrease is applied to these numbers over the 12-year period. (Year 1/1393: 100%; year 2/1384: 75%; year 3/1385: 50%; years 4-7: 50%; years 8-12: 25%).

## E. Implementation Strategy, Institutional, and Financial Arrangements

11. **Role of Government:** In order to achieve the goals listed above the Government has decided to keep for itself the following roles: (i) financing; (ii) monitoring and evaluation; (iii) coordination of donor inputs; (iv) strategic planning; (v) setting technical standards; (vi) regulation of the for-profit private sector; and (vii) coordination and regulation of the NGO sector.

12. **Delivery of Public Health Services:** The government has not yet decided on whether it wants to take on responsibility for delivering public health services itself or contract with NGOs to do. The decision on this will be made based on rigorous evaluation of current contracts, grants, and Ministry of Health (MOH) strengthening mechanism.

13. **Accountability, Monitoring and Evaluation:** The MOH intends to hold itself and its partners accountable for achieving the goals and targets it has established. This will be done through appropriate household and health facility surveys carried out with 3<sup>rd</sup> party assistance.

14. **Financial Flows Through Government:** The Government is working towards having most external funding for public health services flow through the Government budgeting system (pooled funding), and expects to make considerable progress on this in the next 3-7 years.

15. **Structure of MOH and Staffing:** With the exception of females, the MOH will not recruit additional health care providers over the next three years and expects to have many of its staff working with NGOs. The MOH will expend considerable effort to strengthen the Provincial Health Offices using the Government's Priority Reform and Restructuring (PRR) process.

## **2 Current Status and Accomplishments**

### **A. Historical Background**

For a better understanding of the current situation of the health sector in Afghanistan a brief summary of the previous twenty-five years shall be given here.

#### **- Before 1978**

Even before the political change in 1978, Afghanistan suffered from very high mortality and morbidity, particularly among children and women. Throughout the 1960s, Afghanistan's health system was extremely limited, predominantly hospital and doctor based, and concentrated in urban areas where less than 20% of the population lived.<sup>5</sup> Even when medical services were available, needs were only partially met, as medical capacities and treatment were far from being adequate and public health care comprised only very basic services in badly equipped facilities lacking adequate hygienic conditions. The 1960 estimated under five mortality rate (U5MR) of 360 per 1,000 live births was 30% higher than the average of the least developed countries at that time, and 61% higher than the average for developing countries as a whole.

Where they could afford it, people preferred to go abroad for difficult operations or medical treatments. For the majority, however, health facilities and services were not yet accessible. Roads and transportation other than donkeys, horses, and camels hardly existed below the provincial or district level. Health care for rural areas was largely restricted to a number of vertically run disease control programmes such as tuberculosis and leprosy, while basic and emergency health services were not available or were very rudimentary. Traditional methods of healing and religiously motivated rituals, often performed by a *mullah* or *hakim*, were in place and until today many people are using them either in conjunction with or instead of Western medicine.

During this time the Government began establishing basic health centres (BHCs), which were intended to be the core of rural public health services. However, due to understaffing and a limited stock of drugs and supplies, BHCs typically saw only 10 to 20 patients a day, despite the intended BHC catchment population of 25,000. Not surprisingly, during the 1970s the infant mortality rate remained at 157 per 1,000 live births, and nearly 60% of deaths occurred before age 5, with malaria, diarrhoea and respiratory infections being the primary causes of death.

Virtually all health services were provided by the Government, with the exception of some private clinics in the large cities run by doctors who in general were employed civil servants and utilized their official working time from their Government jobs. Other health service providers such as international or national NGOs did not exist.

Like the Afghan state administration in general, health administration was highly centralized. At the provincial and district levels, the management structures replicated those of the MoH in Kabul. Typically, civil servants were appointed to work in places other than their own areas with the purpose of ensuring their loyalty towards the central government. Regular quarterly, monthly and even weekly reports were intended to maintain close relations with Kabul. Many officials had very little understanding of local needs and requirements, in part because they often lacked interest in and commitment to their assigned areas. Traditional healing providers and practices were not included in the formal system. It is thus not very surprising that any "modern", i.e.

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<sup>5</sup> Feroz, F., Loevinsohn, B., Newbrander, W. et al, "Letter from Kabul: Formulating Health Policy in Post-Taliban Afghanistan".

Western health approach promoted by the centre did not essentially affect the population and in consequence, proved not to be sustainable.

- **Soviet occupation and Mujahedin (1979 – 1996)**

During the Soviet occupation and the subsequent civil war, most of the country became totally disconnected from the centre and the major cities. Although the central government maintained its power to appoint governors and managed to protect its interests in the provincial capitals, the district and village levels were, for the most part, subject to the authority of local Mujahedin commanders, in effect decentralizing governance. Management and supervision linkages weakened to the point where they almost ceased to exist, and in consequence, the traditional central planning as well as resource allocation gradually became even more dysfunctional. In the centre and major cities, while relatively better-educated and trained medical staff provided basic medical services, hygiene and health conditions and health-related behaviour hardly changed. During the mid-1980s, international NGOs, many of them Pakistan-based, became significant players in basic service provision to the Afghan population, both for those remaining in the country as well as for those living as refugees in Iran, Pakistan, and Tajikistan. NGOs with experience in conflict situations were funded by the UN and bilateral donors at first to provide services mainly to persons injured in fighting the Soviet occupation, then later to include now underserved rural areas, which could not be supported by the Kabul government. After the signing of the 1988 Geneva Accords, the international community emphasized the development of Afghan NGOs, and provided them with significant funding and support, thereby expanding their role in service delivery. Most of the above activities reflected the various political and humanitarian mandates of the involved organizations and their donors, and thus did not result in standardized health services delivered in a co-ordinated manner. This naturally reinforced the *de-facto* decentralization that outlasted even the hyper centralized Taliban rule and will be difficult for the newly established government to reduce.

In the 1990s, after the withdrawal of the Soviet army and the sharp reduction in international support after the installation of the Mujahedin government, the public health services delivery continued to collapse. In the absence of a centralized controlling administration, the involved NGOs and UN organizations continued to implement emergency and other service programmes with the approval of the relevant local Mujahedin commander or directly with local communities. This continued during the on-going fighting between the different Mujahedin political factions.

- **Taliban (1996 – 2001)**

While managing to consolidate most of the country politically, the Taliban had neither the capacities nor the interest in policy development and management, especially in the social sectors. Religious leaders replaced health professionals in managing the health sector, and health services, including the construction of facilities, were left in the hands of international and increasingly national NGOs. As a result, neither services nor approaches were very much consolidated or strategic, and health care was only arbitrarily provided. A major impact of the Taliban on the status of the present health providers was the general restriction from education for girls and women and from employment for women (with the exception of the health sector). Strictly imposed gender-segregation also made access to medical care very difficult, especially for women and adolescent girls. The legacy of this restriction remains today.

## B. Current Health Status

While on-going efforts by the Transitional Islamic State of Afghanistan (TISA) are achieving some progress in improving health status, the overall situation remains acute. The U5MR is now 257 and the infant mortality rate is 165, the highest in Asia and very high compared to other

developing countries. Major causes of death among children (accounting for 60% of deaths) include diarrhoea, acute respiratory tract infection, and vaccine preventable illnesses. The major source for diarrhoea is the extremely limited access to safe drinking water, estimated as only 13% of households. Additionally, only 12% of households have adequate sanitation. Measles is estimated to cause 10 to 15% of deaths among children under 5.<sup>6</sup> The extremely high maternal mortality rate of 1,600 per 100,000 live births reflects the low status of women, poor infrastructure, and a barely functioning curative health care system. The major causes of maternal death are hemorrhage, obstructed labour, pregnancy-induced hypertension, and sepsis.<sup>7</sup> Less than 10% of women have access to prenatal care or are attended by a skilled birth attendant at delivery. The rate of chronic malnutrition (moderate and severe stunting) remains around 50% reflecting a combination of poor caring practices, micronutrient deficiency, and chronic food insecurity. Among adults, tuberculosis (TB) accounts for an estimated 15,000 deaths per year with a very unusual 70% of detected cases being among women.

### C. Current Health Services Delivery<sup>8</sup>

The MoH and its partners are primarily committed to implement the Basic Package of Health Services (BPHS) as one of the priorities of the National Health Strategy. According to the Afghanistan National Health Resources Assessment (ANHRA):

- 70% of existing primary care clinics are unable to provide even basic mother and child services
- 90% of hospitals do not have the complete equipment to perform C-sections
- 40% of all basic health facilities do not have female staff
- More than 25% of children die before their fifth birthday
- 40% of child deaths are due to preventable causes of diarrhoea and acute respiratory infections

At present, external financial resources are available to fund the implementation of the BPHS for roughly 40% of Afghanistan's population. (This leaves aside the challenges of very difficult geographical conditions and limited human resources and institutional capacities.) In part due to limited human and technical resources, priority is being given to the first tier of the BPHS, as second tier services in mental health and in disabilities require a relatively high degree of specialization and make a relatively small contribution to reducing mortality.

#### *Availability of Health Services*

While the MoH and its partners are stressing the need for facilities to provide the entire range BPHS, at present only a minority are capable of doing so. The following information, taken mostly from the ANHRA, highlights the availability of services under several of the BPHS components.

##### **i Maternal and Newborn Health**

While 80% of facilities reported providing some kind of antenatal care, only 28% reported having a female health worker. This reflects in part the difficulty of recruiting qualified female staff, one

<sup>6</sup> Estimation based on the assessment results of the MoH/UNICEF measles mortality reduction campaign.

<sup>7</sup> CDC, UNICEF, MoH (2002), *Maternal Mortality in Afghanistan: Magnitude, Causes, Risk Factors and Preventability*.

<sup>8</sup> Information based on AREU, *The Public Health System in Afghanistan*, 2002. Afghanistan National Health Resources Assessment (ANHRA) April 2003 Report.

of the main constraints to improved health service delivery to Afghan women and in consequence often children. Only 65% of those facilities provide the basic set of antenatal care services, including TT vaccination, iron supplementation and blood pressure check, while half reported no delivery related services. While hemorrhage during pregnancy or childbirth is the most frequent cause of death in Afghanistan, only 23% of 176 regional/national, provincial and district hospitals reported having a blood bank. Only 28% of the BPHS facilities claim to offer all four activities recommended regarding newborn care, including clean cord care, immediate breastfeeding, immunization and care of newborn infections.

### **ii Child Health and Immunization**

While 69% of the BPHS facilities claim to address childhood diseases and most (66%) maintain to have staff trained in diarrhoea and/or ARI management, only 24% claim to have special hours to see sick children. Only 54% BPHS facilities claim to participate in the National Immunization Days (NIDs), although routine immunization is offered in only 58% of facilities.

### **iii Public Nutrition**

The specified interventions with regard to nutrition are micronutrient supplementation and the treatment of clinical malnutrition. Two thirds of the BPHS facilities claim to diagnose malnutrition but only 44% state to actually treat malnutrition.

### **iv Mental Health**

While mental health problems (e.g., post-traumatic stress, depression) are understood to be highly prevalent in Afghanistan, their extent is very poorly understood. Mental health belongs to the second tier of the BPHS, and at present it is not clear what services will look like. Yet, half of the BPHS facilities state that they engage in mental health activities, most of them in awareness raising and education.<sup>9</sup> Treatment of mental health problems is mostly limited to medication, whereas therapeutic care is practically unknown. This is partly because mental health is a highly cultural-specific matter, and imported models are not always compatible with Afghan traditions and beliefs. Very recent approaches such as role-play, gestalt therapy, art therapy or ergo therapy have been successfully piloted mainly with children by a small number of NGOs but so far have not well established. Currently, mental health-related activities are being implemented also under the supervision of the Ministry for Martyrs and Disabled.

### **v Disabilities**

While war-related disabilities such as mine injuries have been very important for public awareness, other causes of disability including cerebral palsy and polio outnumber these by as much as four to one.<sup>10</sup> Only 10% of all facilities say they engage in physical rehabilitation activities. Less than 1% claim to have a prosthesis technician and prosthesis making equipment. Women are especially affected, as trained staff is extremely limited, and disabled women face a very difficult future as their chances to get married are extremely low.

## ***Human Resources***

The MoH currently employs 26,000 persons (service, managerial, and support), although this number is not firm. Unfortunately, no gender-disaggregated data are available. The ANHRA recorded a total of 11,820 health workers, of whom only 2,955 (25%) are female.<sup>11</sup>

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<sup>9</sup> ANHRA survey (2003:32)

<sup>10</sup> AREU *The Public Health System in Afghanistan*, 2002.

<sup>11</sup> The table is taken from ANHRA survey (2003:36). The figures, however, have some inconsistencies. In the survey, a total of 12,107 health staff is given, 3,004 female and 9,102 male. Here the individual numbers by job and gender were used, not the totals.

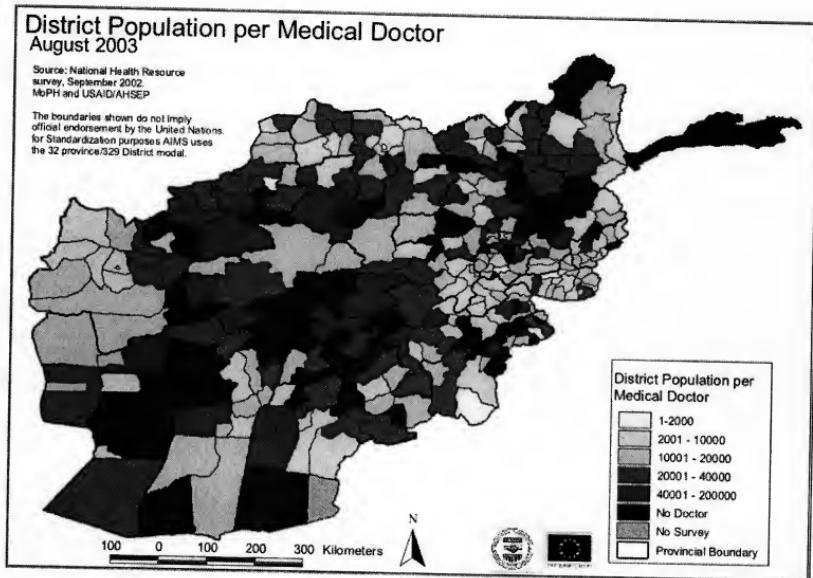
| <b>Health staffing by job type and gender</b> |               |               |               |
|---|---------------|---------------|---------------|
| <b>Job category</b>                           | <b>Male</b>   | <b>Female</b> | <b>Total</b>  |
| Specialist doctors                            | 557           | 90            | 647           |
| Doctors                                       | 1,598         | 605           | 2,203         |
| Doctor's Assistant                            | 1,000         | 185           | 1,185         |
| Nurse   | 2,034         | 566           | 2,600         |
| Mid-Wife                                      | 22            | 467           | 489           |
| Trained Traditional Birth Attendant           | 0             | 77            | 77            |
| Medical Technician                            | 220           | 38            | 258           |
| Dentist                                       | 130           | 29            | 159           |
| Dental Assistant                              | 58            | 13            | 71            |
| Optometrist                                   | 45            | 8             | 53            |
| X-ray Technician                              | 201           | 12            | 213           |
| Laboratory Technician                         | 685           | 62            | 747           |
| Pharmacist                                    | 489           | 88            | 577           |
| Pharmacist Assistant                          | 109           | 18            | 127           |
| Vaccinator                                    | 803           | 205           | 1,008         |
| Community Health Worker                       | 859           | 467           | 1,326         |
| ENT   | 35            | 3             | 38            |
| Malaria Technician                            | 15            | 13            | 28            |
| Physiotherapist                               | 4             | 3             | 7             |
| Physiotherapist Assistant                     | 1             | 6             | 7             |
| <b>Total Health Staff</b>                     | <b>8,865</b>  | <b>2,955</b>  | <b>11,820</b> |
| Non-health Staff                              | 5,033         | 1,513         | 6,546         |
| <b>Total Staff</b>                            | <b>13,898</b> | <b>4,468</b>  | <b>18,366</b> |

The table clearly shows that the majority of recorded health staff is medical doctors and specialized doctors (24.3% of the male health staff and 23.5% of the female). About a fifth of the doctors and specialist doctors are women. It further indicates that the more mid-level health professions are not very attractive to women.

According to ANHRA, the number of medical doctors per 1,000 people is 0.1, against 1.1 for all developing countries.<sup>12</sup> This is an average, of course, and there is a great inequality between provinces and districts, as shown in the map below. In provinces such as Balkh there is one

<sup>12</sup> Website The World Bank Group, *Developing Countries – Health, Nutrition – 2001*.

doctor per 1,000 people, while in others such as Oruzgan there is 0.01 per 1,000 people. This situation is particularly unfavourable for female patients, as it is very unlikely that their reproductive health care needs are being met.



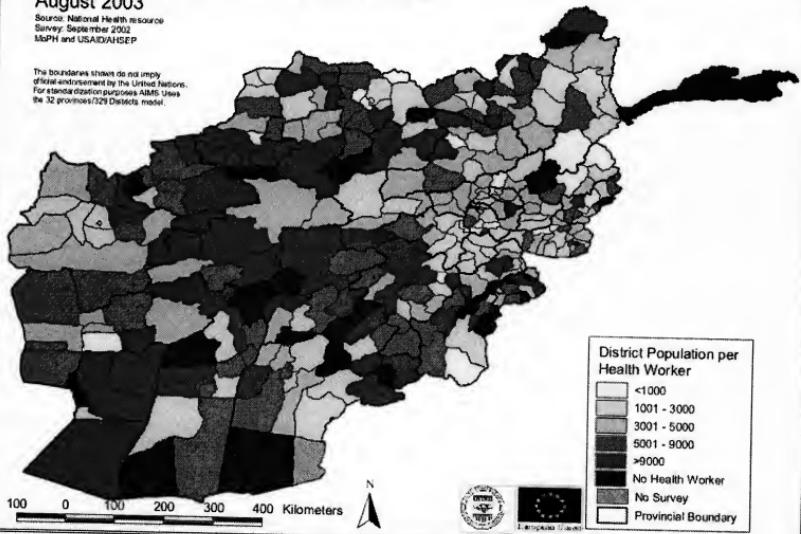
The BPHS is tackling this issue in part by including referral structures that begin at the community level, stressing the importance of intermediate-level and community-based health workers (CHWs). Even so, the following map shows that the number of health workers is far less than needed to get acceptable coverage. The ANHRA survey mentions a total number of female and male CHW as well as Traditional Birth Attendants of 9,318.<sup>13</sup> New policies encourage the adoption of standards for training and support of CHWs, and the integration of CHWs into the health system.

<sup>13</sup> ANHRA survey (2003:39)

## District Population per Health Worker August 2003

Sources: National Health Resource Survey, August 2003  
MoPH and USAID/HSEP

The boundaries shown do not imply  
of total environment by the United Nations.  
For standardization purposes ATMS uses  
the 32 provinces/29 Districts model.



### ***Health Services Providers***

At present, the MoH, national and international NGOs, UN organizations, and the private sector all provide health services. While according to ANHRA 43% of all active facilities are owned exclusively by NGOs and 39% exclusively by the MoH, with another 3% mixed MoH/NGO and 10% private ownership, roughly 80% of current services are estimated to be provided by NGOs, mostly under contracts or grants.<sup>14</sup> In the future, NGOs will be mostly supported through some variation of Performance-based Partnership Agreements (PPAs) or performance-based grants. The part of support provided by the MoH is difficult to estimate as some international agencies provide their support indirectly through the MoH or international as well as national NGOs. The majority of MoH owned facilities receive support from the government, NGOs and UN-organizations. Concerning community-based health posts, almost half of them claim to receive support from outside, mainly drugs and supplies as well as training. Here again, the NGOs provide the larger part of support, beside UN-organizations and very limited the MoH. The implementation of the BPHS and other health services delivery depend to a great extend on NGOs, both national and international.

### ***Public Nutrition and linkages to Food Security***

<sup>14</sup> ANHRA survey (2003:35)

The nutritional situation in Afghanistan is characterized by an extremely high prevalence of chronic malnutrition, also referred to as stunting which is estimated to be as 45-59%, high mortality rates among children less than five years of age and widespread occurrence of micronutrient deficiency diseases. Despite severe food insecurity, levels of acute malnutrition or wasting remain relatively low, between 6 and 10%. Results from nutrition and health surveys suggest that women, infants less than six months and young children between 6 months and 24 months, are at particular nutritional risk in Afghanistan. The general micronutrient status of the population is poor, largely as a result of the lack of diversity of food in the diet and over-reliance on the staple food commodity wheat. Iodine deficiencies disorders are highly prevalent, particularly in mountainous provinces in the north, north-western and central highlands of the country. The prevalence of clinical cases of goitre, as reported by district-level surveys, is reported to be between 30% - 70% and access to iodized salt was estimated to be <1% during 2001. Localized data for other micronutrient deficiencies show prevalence of 50-70% anaemia among young children and their mothers and up to 20% night blindness among women. In addition, over the past few years outbreaks of scurvy have occurred repeatedly in the winter months with severe clinical signs observed in up to 10% during the winter season. The underlying causes for malnutrition, including food security, an inadequate social and care environment, a poor health environment and lack of access to health care are diverse throughout the country. For example, increasing levels of acute malnutrition or wasting are consistently reported during the hot summer season in urban areas, largely caused by a poor health environment and increase in diarrhoeal disease. (*taken from Public Nutrition Policy, MOH, November 2003*).

Public Nutrition is a key priority in the overall Health Policy of the MOH. The overall goal of the MOH, “*is to reduce malnutrition of all types including micronutrient deficiency diseases through integrated and coordinated programming. In collaboration with partners, the MOH will take leadership in identifying, preventing and reducing malnutrition....*” (*Public Health Policy, April 2002 and Public Nutrition Policy and Strategy, November 2003*). The MOH will promote food and nutrition security for all by adopting a public nutrition approach involving broad-based multi-sectoral interventions that address the underlying causes of malnutrition - including food insecurity, inadequate social and care environment, inadequate access to health services and poor health environment. These policies are strategies are described in detail in the *Public Nutrition Policy and Strategy* (November 2003). Public Nutrition strategies will largely be implemented through the BPHS, described by four important components of assessment, prevention and treatment of malnutrition as well as surveillance. The services delivered through the BPHS is being supported and complemented by central and provincial level interventions such as installation and establishment of eight iodizing salt factories, training centres for treatment of severe malnutrition in provincial-level hospitals and small and large-scale fortification of wheat. Legislation procedures which are underway, including the development of National Code for Marketing of Breast-milk Substitutes and legislation for Salt Iodization will further strengthen the implementation of these nutrition programmes. The BPHS alone is inadequate to address the malnutrition in the country therefore, mechanisms for collaboration and integration on food security including food aid, have been defined with other Ministries, specifically Ministry of Agriculture and Animal Husbandry (MAAH) as well Ministry of Rural Rehabilitation and Development (MRRD).

#### ***Water and Sanitation Projects with Health linkage***

Only 13% of the population has access to safe drinking water, with the rest taking their water out of rivers, lakes, canals and other sources that provide unsafe water and transmit water-borne diseases. Various national and international NGOs have built wells in order to prevent water borne diseases that can be life threatening for children in particular, and that affect people's

nutritional status. Since September 2003, the MoH in collaboration with UNICEF, WHO and WFP is actively involved in chlorinating wells in Djallalabad and its surrounding villages. The MoH and UNICEF provide the chlorine powder, while WHO are training chlorinators who will receive food (wheat, oil, pulses and iodized salt). In the north, the local Government and communities are involved in providing safe water supported by WHO and WFP by cash and food for work.

#### **D. Accomplishments**

In line with its new role as steward of the health sector, the MoH has gained understanding of the major health issues and policy options. It has developed and communicated a coherent Interim Health Strategy for the years 2002-2004, and taken the lead in health policy development, pursuing the priority of rolling out the BPHS, as well as in the coordination of external assistance and thus, has made progress in becoming the main responsible and steward of the health sector.

##### ***Governing and Reforming the Health System***

The following represent significant achievements of the MoH, with the support of its partners, towards creating a consistent national approach and strategy:

- Specific policies and guidelines have been devised to exert leadership in the sector, including the BPHS (finalized 04/2003 but used for guidance from mid to late 2002), National Salary Policy (08/2003), Recommended Human Resource Development Policy (08/2003), Reproductive Health Strategy (06/2003), and the Package of Minimum Curative Health Services for Hospitals (08/2003).
- A Consultative Group on Health and Nutrition (CGHN), chaired by the MoH, has been established, and functions as a key means of co-ordination between the MoH and major stakeholders (donors, involved UN-organizations, governmental organizations, and NGOs).
- The Grants and Contract Management Unit (GCMU) has been another important new institution in the MoH. The GCMU, established in early 2003, is staffed with national and international technical and medical experts and is responsible for the management and monitoring of contracted out health services delivery.
- Based on the results of the ANHRA, health-planning workshops have been conducted in Kabul and the 32 provinces. As this was the first time that all provincial stakeholders were brought together in a systematic way, the workshops proved to be a major means for disseminating information and policies and in consequence, an institution that will facilitate decentralization processes.
- Co-ordination mechanisms also have been established at the provincial levels of the MoH. Standard Terms of Reference for Provincial Health Coordination Committees (PCC's) have been developed, and are being introduced in all provinces. Under the overall leadership of the Provincial Health Director, each PHCC is responsible for coordinating the activities of all stakeholders in achieving MOH priorities, particularly the expanded delivery of the BPHS, including facilitating synchronization of stakeholder activities to further support quality and accordance with the National Health Strategy.
- A standard salary scale for all institutions providing services has been developed in order to reduce competition on human resources and capacities.

- Other institutional mechanisms such as technical units, working groups and task forces have been established to provide information on status and needs and to recommend on or develop intervention strategies.

### ***Special Programmes***

The MoH has successfully implemented several public health programmes in order to meet the immediate needs of the population:

- The Expanded Programme on Immunization (EPI) includes vaccinations against Measles, Polio, Tetanus, DPT and BCG. Approximately 11.5 million children have been vaccinated for measles, attaining national coverage greater than 90%.
- Vitamin A deficiency is wide spread especially among children and has been addressed by particular public campaigns. Vaccinating more than 6 million children and administering vitamin A to more than 5 million achieved coverage greater than 90%.<sup>15</sup>
- The MoH, in collaboration with UNICEF and WHO has established an emergency supplementary feeding programme including nutritional therapeutic centres. More than 300,000 malnourished children and women were provided with supplementary and therapeutic feeding.

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<sup>15</sup> Health and Nutrition Public Investment Programme

### **3 Key Issues and Constraints (including cross-cutting issues)**

#### ***Key Health Sector Issues***

The majority of the Afghan population does not have access to a health facility and thus to the basic services that could make a large difference to their health. The reasons for this situation are complex, and include inadequate number of female health staff in rural areas; shortage of skilled health staff in rural areas generally; lack of managerial capacity particularly at provincial level; and, managerial and organizational structures that do not provide incentives or accountability for results. Of the 912 facilities listed as active in ANHRA<sup>16</sup>, not all offer all services that are included in the BPHS or are all personnel assigned to the facility working. One third (95 districts) of all districts are currently above the 1 facility to 30,000 population norm proposed by the MoH as a short-term goal. Moreover, the distribution of health facilities is not at all geographically balanced, and there is significant variation in the number of population served by one facility between provinces as well as districts within provinces. In addition, successful implementation of the BPHS requires essential medical and technical equipment and specific supplies, as well as electricity and access to safe drinking water.

##### *i. Inadequate number of female health staff in rural areas*

Perhaps the most important health sector issue is the inadequate number of female staff, especially in rural areas. This is the result of a number of social and cultural conditions, described below, which make it difficult to recruit and retain female health workers. The constraints to staffing of health facilities with females in turns make it difficult for women to attend. At present, 40% of existing health facilities has no female staff. In addition to the actual numbers, due to females being deprived of technical training under the Taliban, they may overall have lower capacity than their male counterparts. Due to restrictions placed on employment, many women lost their professional skills and practice and in consequence, often their technical knowledge. Even before the Taliban, many of the well-trained and educated medical doctors left the country beginning in 1978, and continuing with successive regime changes and political turmoil. National and international NGOs have developed training and employment strategies to increase the ratio of female staff especially in rural areas, although the demand is enormous. Without the support of the MoH and other government institutions as well as religious and social leaders however, it is very unlikely that their approaches will be sustainable. One possibility is to take advantage of returnees, who may have had opportunities in Iran or Pakistan for exposure to community-based health care, health education, or training, as potential health care workers or as community resources. Equitable, effective and efficient delivery of the BPHS will needs well-trained female health staff of all levels, especially the rural one.

##### *ii. Shortage of skilled health staff in rural areas generally*

In general, the clinical skills of providers have been degraded over the years of conflict due to retirement or emigration of skilled instructors, lack of financial and material resources, restricted access to equipment as well as current technical information, and the rapid expansion of medical schools. More recently, the practices of the Taliban regime also affected the quality of male as well as female medical education. In consequence, the skill of faculty graduates in recent years is questionable. Just as important, however, historically, it has been difficult to attract and retain

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<sup>16</sup> ANHRA survey (2003:6)

staff at the rural areas, largely because of the amenities (e.g., education for children) and earning opportunities offered in the large cities. Taking the number of doctors in MoH employment, it transpires that while the ratio of physicians to population in Kabul is 1:1,765, the number in the rest of Afghanistan is 1:14,432.

*iii. Lack of managerial capacity particularly at provincial level*

In addition, there is a lack of management capacity at the provincial level, for a number of reasons. First, there has historically been an emphasis on clinical rather than management. Second, public health is a relatively new discipline for Afghanistan. Third, the role of the MoH has been changed from provider to steward, and the process of making the needed changes in attitudes and expectation will take some time. In addition, the relationship between MoH Kabul and the Provincial Health Offices (PHOs) is yet to be clearly defined. The PHOs (as well as the provincial representatives of other ministries) look to Kabul for decisions. At present, the PHOs are typically not involved in the budget preparation. On the other hand, the required capacities to manage and control their budgets still do not exist. Both as a cause and an outcome of the above factors, the level of budget execution (spending) of the PHOs is low (typically 25% of budget) due to non-availability of cash.

*iv. Managerial and organizational structures that do not provide incentives or accountability for results.*

The MoH along with other Government ministries and institutions are undergoing reform. At present, without a formal system of reporting and supervision, especially at the provincial level, accountability is limited. Aside from the as of yet unclear understanding of the new role of MoH and the PHOs, a lack of position descriptions with clear responsibilities and with regular objective review discourages high performance. The lack of financial and material resources with which to carry out tasks, including planning and supervision of NGOs and other providers, has similarly discouraged MoH staff. Above all else, however, the low level of Government salaries requires that staff support themselves and their families through other means, often at the expense of time and effort spent at their official jobs. A recently approved Priority Reform and Restructuring procedure for the Provincial Health Department could bring considerable change in this situation. If introduced as envisaged, the MoH employees will be selected through a fair and transparent process based on merit only, and once in position, they will be appraised regularly. The penalty for underperformance will be the loss of the interim additional allowance, which, depending on the position, is a sum between \$150 and \$635 per month.

### ***Cross-Cutting Issues:***

In addition to the above issues within the health sector, a number of cross-cutting issues affect both health outcomes and the ability to manage and deliver health services. These issues include lack of physical security and respect of human rights; status of women; lack of physical infrastructure including rural roads, electricity, improved water supplies, and sanitation systems; economic constraints; low levels of education, particularly female education; and, narcotics and their pervasive effect on health.

*i) Lack of physical security and respect of human rights*

Above all else, Afghans yearn for physical security. As such, physical security is the ultimate crosscutting issue. Without basic security, Afghanistan citizens will be unable to maintain their own health and well-being and service providing institutions will not be able to maintain their own activities. The implementation of the BPHS to all Afghans will only be feasible if the security situation improves and stabilizes. Availability and access to health services is a basic human right, which would be taken for granted for all Afghans. While physical security and human rights do not originate in the health sector, health has been one of the sectors in which community participation encouraged, however sporadically. Involvement, participation, and commitment of the communities through the strategy of community-based health care can contribute to developing a sense of ownership with the regard to the improvement of the health situation, and can even encourage the provision of human rights to all citizens.

*ii) Status of women*

The status of women is obviously an issue, which affects most sectors, not just health. To achieve a substantial impact on the equity, effectiveness, and efficiency of the health programmes, gender issues need to be addressed at the societal, institutional, and policy level. Afghanistan society, especially in the rural areas, is a conservative, tribal and exclusive society with rather strong social values, norms, and customs, including gender segregation and the division of space into private and public. While these traditions may vary among regions, ethnic groups, and families, in some areas females are discouraged from receiving an education, travelling, or working outside of the home, especially in work that puts them in regular contact with strangers. Existing cultural and religious traditions concerning female public mobility affect access to health care in a number of ways. First, in many areas, it is unacceptable for a woman to consult a male doctor or be taken care of by male health workers. Of course, it is almost equally unacceptable for a female provider to treat a male patient, although given the gender ratio of providers; this poses much less of a constraint. Second, these same traditions drastically reduce the ability to recruit and retain female health workers, which would in turn make it acceptable for women to attend. As noted above, at present, 40% of existing health facilities has no female staff. It is very unlikely that in particular the rural, non-literate population will change their health-related behaviour, even if there were more facilities accessible.

*iii) Lack of physical infrastructure including rural roads, electricity, improved water supplies, and sanitation systems*

Another factor reducing access to health care is Afghanistan's degraded infrastructure, especially roads. Access is especially difficult during the winter and after heavy rainfall. Rehabilitation and construction works are going on but there is still much work to be done. According to ANHRA, most facilities are within 40 minutes from a paved road<sup>17</sup>, but the majority of the Afghan population does not live near a paved road. The required long hours travel by foot, donkey, or camel to reach health facilities is particularly difficult for women who need emergency obstetric care, seriously ill people who need continuous or repeated treatment and for the wounded.<sup>18</sup> As noted above, successful implementation of the BPHS requires electricity and access to safe drinking water. According to ANHRA, only 34% of active health facilities have electricity available, of which only half is city power. Concerning sanitation, public awareness on environment-related issues -- including use of natural resources, energy, and disposal of waste -- is poorly developed in Afghanistan and impacts the health status of the population. Water management in particular is a vital environmental issue, as water borne diseases such as diarrhoea

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<sup>17</sup> ANHRA survey (2003:19).

<sup>18</sup> WB/AREU (March 2003:48).

are among the causes for death especially of children under five. This would include not only the provision and maintenance of safe drinking water but also the use of clean and disposal of contaminated water.

*iv) Economic constraints*

Poor purchasing power is another constraint to access to health services. This takes the form of lack of ability to pay for transportation to a health facility; lack of ability to purchase medicines or even pay for needed health services (formally or informally).

*v) Low levels of education, particularly female education*

The majority of Afghan women and men living in rural and remote areas are non-literate and do not have any formal education or training. This means that the population generally has a limited understanding of personal behaviours (i.e., drinking water, sanitation) and their affect on health status. They also tend to defer to doctors rather than taking a pro-active role in their own well-being, especially concerning preventive health care. Finally, the low level of education and literacy results in a limited pool of prospective health workers, from CHWs on up. This is especially acute for females and particularly from the time of the Taliban when female education was restricted.

*vi) Narcotics and their pervasive effect on health.*

Afghanistan is the world's major source of opium, now providing over 70% of the world's supply. This affects the health sector in at least two ways. First, domestic drug addiction is expanding, although it is not yet publicly recognized that Afghanistan has a drug abuse problem. Dangerously, this is certain to increase the incidence of HIV/AIDS and other blood borne viruses' spreads, and treatment and rehabilitation for drug abusers will be among the future health needs of the population. Second, the expansion of the drug economy will undercut progress made in the areas of governance and rule of law, decreasing the ability of public and private institutions to plan, manage, and deliver health services. It will be the task of the various involved line ministries and other institutions to make the obvious connections between drug abuse and livelihood, law enforcement, etc.

## **4 Strategic Vision, Goals, and Key priorities**

### **Strategic Vision**

*The objective of the National Health and Nutrition Programme is to reduce the high levels of mortality and morbidity, especially among women and children, through the development of equitable, effective and efficient health services that address the priority health and nutrition problems, and through developing the capacity to deliver the necessary services. (Health and Nutrition Public Investment Programme; National Development Budget, February 2003)*

#### **A. Delivery of the Basic Package of Health Services (BPHS)**

To facilitate its objectives the Ministry of Health (MoH) in March 2003 finalized the BPHS, a standardized package of basic services which forms the core of service delivery in all primary health care facilities and consists of the following components:

|               |  |
|---------------|--|
| (First tier)  | - Maternal and Newborn Health<br>- Child Health and Immunization<br>- Public Nutrition<br>- Communicable Diseases<br>- Supply of Essential Drugs |
| (Second tier) | - Mental Health<br>- Disability  |

The BPHS includes comprehensive and basic emergency obstetric care at provincial and district levels respectively, curative and preventive care at health facilities and enhanced community health activities. High priority is given on maternal and child health and a special focus on safe motherhood in order to tackle the devastating maternal, infant and child mortality rates. The BPHS shall be available to all Afghans, regardless of their ethnicity or gender, even to those living in remote and underserved or un-served areas in the next three to seven years. It also specifies different facility types, staffing pattern for the facility types, equipment and supplies, etc. and thus, beside the substance, also provides the system for implementation.

#### **B. Reduction of communicable diseases**

Alongside, immunization services are made available and accessible to all children and women on equitable basis to increase and sustain high immunization coverage and to reduce morbidity and mortality due to vaccine preventable diseases. These interventions include BDG, Measles, DPT, Polio, Tetanus and vitamin A. Other special programmes such as for the defeat of Malaria, Leishmaniasis or Tuberculosis are corresponding with the objective to decrease incidence of communicable diseases.

#### **C. Establishment of prerequisites for the implementation of the BPHS**

Additionally, enhanced national capacity at all levels of the MoH to manage and implement basic health services will be significantly strengthened within the set five to seven years. The necessary infrastructure will be established and all health facilities staffed in line with the BPHS. The required human resources female in particular, will be recruited and adequately trained to deliver high quality basic health services so underserved or un-served areas will no longer be existent. Health services delivery will mainly be provided by national and international NGOs.

## **D. Goals and key priorities**

*The goal of this programme is to work towards Health for All based on a primary health care approach, underscored by the principles of fairness and equity in resource allocation and service provision, good governance, a decentralized and integrated health system, community involvement, and strong inter-sectoral collaboration and co-operation.* (Health and Nutrition Public Investment Programme; National Development Budget, February 2003)

Based on the priorities and objectives of the Interim Health Strategy and the Health and Nutrition Public Investment Programme for 1382, the following five sub-programmes have been proposed for the next five to seven years. The sub-programme objectives are presented in general terms, with the targets provided in section 5 (“outcome/service delivery indicators and targets”) and a fuller explanation given in section 8 (“development programme and budget”).

*i Expansion of the scope of the BPHS, i.e. delivery of both tiers of the BPHS to all Afghans*

The Government has committed itself to ensuring that the BPHS (a package of services covering maternal and newborn health, child health and immunization, public nutrition, and communicable disease control) is delivered to all Afghans, regardless of where they live, their ethnicity, or gender, in the next 3-7 years. The delivery of the BPHS is planned through four levels of facility (health post, basic health centre, comprehensive health centre, and district hospital), each with its own staffing pattern and defined catchment area. In addition, Community Health Workers (CHWs), trained and supported from a health facility, will be key agents in delivering preventive and basic curative health services to remote areas. The BPHS was designed with an eye to making the most cost effective use of scarce resources; the estimated annual per capita cost is \$4.55 (USD 2001). The BPHS approach has been the key priority in the sector, is agreed to by almost all stakeholders, and continues to be compelling. The Government will continue to pursue this over-arching goal as its first priority, as a means to provide a peace dividend to Afghans, and achieve the Millennium Development Goals (MDGs).

According to MoH strategy, NGOs will be the main implementers for the BPHS, while the MoH at central and provincial levels will be responsible for planning, coordinating, regulating, monitoring, and supervising NGOs and the private sector.

While implicit in ensuring the delivery of the BPHS to all Afghans, the Government is committed to reducing inequality in the availability and utilization of health services and will continue to track this by gender, locale, and socio-economic status. Once the current content of the BPHS Tier 1 has been successfully delivered to all Afghans, the Government intends to broaden the scope of the BPHS to include additional Tier 2 services such as mental health, community care for the disabled, and prevention of HIV/AIDS. This will likely be implemented in seven years but could begin earlier if rapid progress on BPHS delivery is achieved or if additional policy changes are introduced based on an analysis of the current situation.

Funds currently available will cover only about 40% of the population. For 1383 (2004), only \$42.9 million is available, against an estimated requirement of \$87.38 million. The population coverage targets for providing the BPHS are 80% for year 3; 90% by year 7 and 95% by year 10. (More detail is provided in Annex 3, Detailed Costing Calculations and Tables.)

*ii Special programs*

While most services will ultimately be integrated into the BPHS, this may require at least three years. In the mean time, the Government will continue to strengthen several critical vertical programmes and campaigns that ensure blanket coverage of simple but effective interventions. These special programmes are: EPI (polio, neo-natal tetanus, measles, routine vaccination coverage); malaria and Leishmaniasis; public nutrition; tuberculosis; emergency preparedness, mitigation, and response; and HIV/AIDS.

*iii Maintain and improve the quality of hospital services without jeopardizing the quality of other health services delivery*

Without compromising the delivery of the BPHS or returning to the historically skewed allocation of resources to hospitals, the Government intends in 3 to 7 years to considerably strengthen the quality of hospital services with priority being given to services such as emergency obstetrical care and trauma management. Policies are currently being developed by a national Hospital Task Force based on information produced by ANHRA (2002) and a focused national hospital survey conducted in October – November 2003. This will include defining a package of essential hospital services, designing a generic hospital classification, rationalizing of the district (included in the BPHS), provincial, regional, and tertiary hospitals to reduce the current concentration in Kabul and improve access to other areas, and improving quality.

*iv Human resource development*

The Government will ensure that every health facility in the country has sufficient staff, especially female, and that all staff is properly trained and independently certified to have the skills and knowledge required to deliver high quality health services. A total of 10,000 nurses, midwives and other paramedical staff will need to be newly trained by 2013 to meet the demand of the expanding health service delivery system. In addition, hundreds of medical professionals will need to enrol in continuous education courses to refresh and update their knowledge. To this extent, nine Intermediate Health Sciences (IHS) Institutes will be rehabilitated, and three will be constructed. Twelve IHS's will, hopefully, be operational by 2013.

**v Administrative Reform and Capacity Building**

The Government is committed to rigorously testing and evaluating managerial and organizational reforms to improve health service delivery. These reforms will address issues of accountability and incentives for results. Driven by what works rather than ideology, the Government will find productive means to work with the private and NGO sectors.

The capacity of Afghans to manage health services will be substantially strengthened with the aim, in 7 years and certainly by 2015, of replacing most expatriates with properly trained Afghans. The Technical Assistance needs will be maximum in years 1-3 (2004-2006) from now. There will be an intermediate need in the years 4-7 (2007-2010) and a lesser need in the years 8-12 (2011-2015).

## **5 Outcome/Service Delivery Indicators and Targets**

The table on the following page presents the indicators for the five sub-programmes mentioned above, along with the baseline and the targets for each of the three periods. Additional explanation on the determination of indicators and targets is given in the subsequent text sections (especially in “development program and budget”) and in Annex 2.

**PROGRAM NAME:** Health

| Solar year  | 1381    | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 2008 | 2009 | 2010 | 2011 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 |
|-------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Fiscal year | 2002/03 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |      |
| #           | 1       | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 8    | 9    | 10   | 11   | 12   |      |      |      |      |      |

**Millennium Development Goals**

1. Maternal health: Three-quarters reduction in maternal mortality rate.
2. Child mortality: Two-thirds reduction in under-five mortality rate.
3. HIV/AIDS and malaria: a) By 2015, halt and begin to reverse the spread of HIV/AIDS. b) By 2015, reverse the incidence of malaria and other major diseases.

1,600  
257  
[see annex](#)

400  
86  
[see annex](#)

**Target for service delivery**

|   |                           |                           |                           |
|---|---------------------------|---------------------------|---------------------------|
| Subprogram 1: Basic Package of Health Services (BPHS)           | 50%                       | 80%                       | 90%                       |
| Indicator 1: % of population covered by BPHS.                   | <a href="#">see annex</a> | <a href="#">see annex</a> | <a href="#">see annex</a> |
| Subprogram 2: Special programs                                  |                           |                           |                           |
| Indicator 1: % of population covered                            |                           | < 1%                      | < 1%                      |
| Subprogram 3: Hospitals   | na                        |                           |                           |
| Indicator 1: Case fatality rate for obstetric procedures        |                           |                           |                           |
| Subprogram 4: Human resource development                        |                           |                           |                           |
| Indicator 1: % of BHCs staffed with midwives.                   | 31%                       | 50%                       | 70%                       |
| Indicator 2: % of CHCs staffed with midwives.                   | 36%                       | 55%                       | 75%                       |
| Indicator 3: Ratio of physicians to allied health care workers. | TBD                       | TBD                       | TBD                       |
| Subprogram 5: Administrative reform & capacity building         |                           |                           |                           |
| Indicator 1: % of allocated budget expended by PHOs             | 40%                       | .66%                      | 75%                       |

## **6 Costing of Outcome/Service Delivery Targets**

All service delivery targets of all sub-programs are aimed at reaching the two Millennium Development Goals specified in the Development Program and Budget section.

It is important to realize the mutually reinforcing nature of the various sub-programs. For instance: (i) the construction program for Health Clinics is in line with the planned growth of the BPHS service delivery network; (ii) the Special Programs are in line with the size and expected growth of the BPHS service delivery network (for instance the EPI expected number of fixed EPI facilities); (iii) the Special Programs are all built upon the expected size of the BPHS (there will be no use for funding only Special Programs as they will have no service delivery network); (iv) the training capacity of the IHS's is designed with a knowledge on the expected demand for and distribution of essential categories of, mainly female, health staff; (v) the Technical Assistance needs' for all five sub-programs are brought under sub-program five 'Administrative Reform and Capacity Building'.

The five, mutually enforcing and interdependent, sub-programs of the Health and Nutrition Sector are:

1. Basic Package of Health Services
2. Special Programs
3. Human Resource Development
4. Improving the Quality of Hospital Services
5. Administrative Reform and Capacity Building

### ***6.1 Basic Package of Health Services***

The Basic Package of Health Services (BPHS) has been costed.<sup>19</sup> The total cost, based on a population of 300,000 Afghans, is estimated at \$4.55 (2001) per capita per year. The cost of the first layer is estimated at \$1.13 per capita per year, the second and third layers are estimated at \$2.41 per capita per year, and the cost of the fourth layer, the Community Based Health Care (CBHC) system, is estimated at \$1.01 per capita per year. The costing of this BPHS, of \$4.55 per capita per year in 2001 US\$, is fairly accurate; the evidence so far, with the costing of Province wide interventions, points at an average cost of about \$3.80 (2003 US\$) per capita per year to deliver this minimum BPHS ratio. For interventions that cover districts, or clusters of districts, this cost does not hold; far higher sums are needed for this type of intervention.

The targets for implementing the minimum ratios of the BPHS are: 80% for year 3; 90% by year 7 and 95% by year 10.

In year 1385 (2006), \$0.25 per capita will be added to pay for community based disability and mental health. This sum is a guesstimate informed by an absolute lack of monies. This small sum would still provide \$4.7 M per year for these second tier components of the BPHS.

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<sup>19</sup> Costing of the Basic Package of Health Services for Afghanistan, Management Sciences for Health, March 31, 2003.

## **6.2 Special Programs**

- (a) Expanded Programme on Immunization
- (b) Malaria and Leishmaniasis
- (c) Public Nutrition
- (d) Tuberculosis
- (e) Emergency Preparedness and Response
- (f) HIV/AIDS

All special programs are built upon the Basic Package of health services, where trained and regularly paid staff, adequately equipped facilities and most essential drugs is available.

Below, cost figures and assumptions used to cost the various special programs are given. For more details see annex 3 'Detailed Costing Calculations and Tables'.

### **(a) Expanded Programme on Immunization**

The costs include recurrent costs related to vaccines and syringes and needles and the like, the capital costs include cold chain equipment and accessories. All calculations are based on a certain population size and 3% inflation.

#### **Assumptions related to recurrent cost estimations for EPI.**

1. 22.2 M 2003 Population with a 1.92% growth rate.
2. All calculations made are for 100% coverage including National Immunization Days (NIDs) which are different from Vaccine forecasting sheets supplied by Copenhagen (the main supplier).
3. Vaccine wastage factors: Routine EPI (BCG-50%, Measles-50%, DPT-40%, Polio-40%, TT-40%).
4. Vaccine wastage factors: For SIAs (Polio-20%, Measles-20% & TT-20%).
5. TT vaccine calculation done on the basis of Pregnant women. Two doses for every pregnant woman.
6. In reality half of all pregnant WCBA will be eligible for one dose due to their previous TT shots. Remaining doses will be utilized for non-pregnant CBAs.
7. For measles campaigns 17% of the total population has been calculated (9-59 months).
8. For TT SIAs: In 2004 100% of the total CBAs are calculated.

#### **Assumptions related to capital cost estimations for EPI.**

1. Cold chain equipment life is five years, hence replacement will take place after 5 years
2. Cold box and vaccine carrier life is 10 years
3. Start with 800 facilities in 2004 and end with 1375 by year 2015; in par with the expected targets in the BPHS
4. A ten percent increase in unit cost is added per year
5. Spare parts for absorption type units to be changed each year
6. Spare parts for compression type units to be changed every other year
7. Initial number of fixed centre=800, provincial cold rooms=23 and regional vaccine stores=7
8. Annual inflation rate 0%

### **(b) Malaria and Leishmaniasis**

The Malaria Program, like the other special programs, is built upon the existing service delivery network. All costs are in constant 2003 US\$; nil adjustments in inflation were made.

#### **Assumptions and costing figures used to cost the Malaria program**

|                                     |  |
|-------------------------------------|--|
| Malaria drug                        | Uncomplicated cases can be managed under the BPHS, but severe and complicated P. Falciparum cases (around 20% of all cases) need Artesunate/Fansidar new regime, which are not included in the essential drug lists. 1.2\$ per patient. Accessibility of this drugs, 25% in 2004, 30% in 2005, 40% in 2006, 50% in 2009, 60% in 2011, 70% in 2013, 80% in 2015 accordingly   |
| Contingency for outbreaks           | Procurement of outbreak response contingency stocks for 14 provinces. \$100,000 lump sum   |
| Training for Malaria                | For doctors, 5 days training course, at an average cost \$30 per person, for other Health workers, 3 days training course, at an average cost of \$12 per person   |
| Training for BPHS integration       | \$1,000 lump sum for the remaining 18 province with 3% inflation   |
| Insecticide Treated Bed nets (ITNs) | ITNs (\$2 per net) distribution policy: free distribution for widows' households, \$1 subsidies for the population in rural areas; in urban areas ITNs will be sold in shops at an average cost of \$2. Average size of one household is seven, i.e. total target households in 14 provinces are around 1.1million, and 3.3% among them are headed by a female (from MICS 2003). ITNs would be replaced once per 4-5 years |

#### **(c) Public Nutrition**

**Budget estimate for costing of the Public Nutrition over and above the BPHS (all complementing and supporting the implementation of the BPHS at District level)**  
**Public Nutrition Department, December 2003**

|  | Per year (US\$) | Comments                                      |
|--|-----------------|---|
| <b>Universal Salt Iodization</b>   |                 |   |
| Monitoring and quality Control   | 10,000          | Testing at production sites                   |
| Laboratory capacity and support (urine analysis)                                 | 50,000          | \$5/test, establishing one lab is \$50,000    |
| Communication, social marketing and advocacy                                     | 20,000          | TV, media etc                                 |
| Training, global networks, debates a advocacy                                    | 5,000           | Travel, and training (access global networks) |
| <b>Fortification of wheat (central silo, decentralized millers, Super flour)</b> |                 |   |
| Monitoring and quality Control   | 10,000          | Testing production sites                      |
| Laboratory capacity and support (blood, urinary analysis)                        | 40,000          | For testing levels                            |
| Communication, social marketing and advocacy,                                    | 20,000          | TV and media                                  |

|  |         |  |
|--|---------|--|
| legislation  |         |  |
| Training, global networks, debates a advocacy  | 5,000   | Travel, training   |
| <b>Treatment of Severe Malnutrition</b>  |         |  |
| Support for 10 Training Centre TFUs (Provincial Level)                                   | 360,000 | F100, F75 supplies, staff support, drug equipment for 10 Training Centre TFUs (over and above BPHS) (@3,000 per month per TFU) |
| Support for 30 TFUs (District level)   | 360,000 | F100, F75 supplies for 30 TFUs at District level @ \$1,000 (additional support to BPHS NGO)                                    |
| <b>Support for Baby Friendly Hospital Initiative and implementation of National Code</b> |         |  |
| Training, monitoring   | 20,000  | Monitoring National Code and support for 12 hospitals to adhere to the Baby Friendly Initiative                                |

#### (d) Tuberculosis

Nil adjustments to inflation were made; all costs are in constant 2003 US\$.

##### Assumptions and basic planning figures used for costing the TB program

|                              |  |
|------------------------------|--|
| TB drugs                     | Cost of one treatment regimen: \$14  |
| Training for DOTS            | 150\$ per microscopist, \$80 per person, \$50 per person, 2 health workers per facility, \$30 Per person, 2 community health worker per facility, \$ 2,500 per province as lump sum, all with 0% annual inflation  |
| DOTS shelter                 | Simple accommodations for rural TB patients who have problems to go to health facilities, so as to ensure completing DOTS therapy. Basically facilities are donated or contributed by communities. Renovation fee is required (\$20,000 per facilities), at least one shelter per province |
| DOTS shelter operation costs | Every month \$200 per shelter, one administrator (\$100 per month), two support staff (\$50 per month), with 0% inflation of operation costs and 0% inflation of staff costs   |
| Microscope                   | \$ 2,500 per province, replace with new one after seven years  |
| Spare parts                  | \$ 125 (5%) per microscope,  |

#### (e) Emergency Preparedness and Response

Nil Adjustments to inflation were made: all costs are in constant 2003 US\$.

##### Assumptions used for costing the Emergency Preparedness and Response program

|                               |   |
|-------------------------------|---|
| Drug medicine                 | Every 2 months, medium scale outbreaks (diarrhoea, Shigella, hemorrhagic fever etc exclude malaria), target 10,000 to 20,000 population, one operation, \$15,000 operation costs, \$25,000 medicine/vaccine costs |
| National Reference laboratory | Five medical doctors (\$170 per month), 13 lab technicians (\$120 per month), 20 support staff (\$50 per month)   |
| National Reference laboratory | 1,000 referral tests per month, with 5% annual growth. Test cost ; average \$3 per test with 0% inflation, including HIV, Hepatitis, Cholera, Shigella, Dengue fever, Helminthes, Diphtheria, E. Coli             |
| Regional Reference Lab        | 100 referral tests per month, with 5% annual growth. Test cost ; average \$3 per test with 0% inflation, including HIV, Hepatitis, Cholera, Shigella, Dengue fever, Helminthes, Diphtheria, E. Coli               |
| Regional Reference Lab        | In each reference lab, located in the regional hospital, one medical doctor (\$170 per month), 2 lab technicians (\$120 per month), 4 support staff (\$50 per month)  |

## (f) HIV/AIDS

Nil adjustments to inflation were made; all costs are in constant 2003 US\$.

### Assumptions used for costing the HIV/AIDS program

|  |  |
|--|--|
| National Surveillance System                           | One sentinel facility \$10,000 lump sum per year, By 2010, a total of 41 sentinel sites will be established (Kabul 5, Heart 3, Nangarhar 2, Balkh 2, and Kandahar 2. For the other provinces (one per province) with 0% inflation. Add \$20,000 of initial capital investment for reference laboratory in Kabul 2, Herat 1, Nangarhar 1 Balkh 1 and Kandahar 1 |
| Equipment with spare parts for safe blood trans fusion | One refrigerator \$800 per new open blood bank with 10% spare parts fee. In every seven years, exchanged with new equipment. Annually the equipment price is increased with 0% inflation   |
| Blood bags   | \$1 per bag with 0% annual inflation. Two units per transfusion on average   |
| HIV Rapid test   | \$1 per test   |
| HIV ELISA test   | Conducted in six confirmation centres. One facility \$3,000 lump sum per year with 0% inflation  |
| HB Antigen kit   | \$0.7 per test   |
| HCV kits   | \$0.7 per test   |
| Syphilis test  | \$.5 per test  |
| Condom social marketing                                | \$0.2 per one condom, Target distribution number is 1.5% of young age population, and 10 to 15% will be sold in the markets  |
| VCT centre training                                    | \$3,000 lump sum for initial training, \$1,000 lump sum per VCT centre for refresh training  |
| VCT human resource                                     | Five regional VCT have three doctors (\$200 per month ), two lab-technicians (\$120 per month), three support staff (\$80), other VZCT facilities have one doctor (\$200), one lab-technician (\$120) and one support staff (\$80), with 0% annual salary inflation.   |
| VCT test kits  | 1,000 tests monthly for five regional VCT centres, and 30 tests for other VCT centre monthly, 1\$ per tests and \$0.5 IEC material   |
| High risk group  | Including IDUs 3,500, Men sex with men 100,000, Commercial sex worker 8,000 and their clients 80,000, drug abusers 200,000 with 2%   |

|                             | annual growth  |
|-----------------------------|--|
| BCC interventions           | \$30 lump sum per one high risk person to change behaviours (by peer groups and NGOs), Target is 2 to 7.5% (by 2015) population among high risk groups per year. |
| National Advocacy           | \$50,000 lump sum including national consensus meeting, advocacy workshop with 0% inflation  |
| IEC and life saving skill   | Integrated in-school training, \$2 per person lump sum; the target is 60% of 14 years old populations  |
| STI treatment               | Majority of services are provided by NGOs, \$20,000 lump sum for technical supports and drugs with 0% inflation  |
| HIV/AIDS treatment and care | AIDS ARV Treatment \$40 per month per person, annually 15 patients participate in the regime, plus \$30,000 care lump sum with 0% inflation                      |
| HIV/AIDS supports           | Create peer support groups with NGOs collaboration in five major cities by 2015. \$50,000 lump sum support for each group  |

Cost Forecast of Special Health Programs

|                                    |             | <i>2004</i> | <i>2005</i> | <i>2006</i>      | <i>2007-2010</i> | <i>2011-2015</i> |
|------------------------------------|-------------|-------------|-------------|------------------|------------------|------------------|
| TB                                 | Recurrent   | 7,542,043   | 5,762,092   | 7,605,556        | 15,689,924       | 22,219,184       |
|                                    | Capital     | 1,177,786   | 385,365     | 466,136          | 2,446,847        | 2,836,135        |
|                                    | Total       | 8,719,829   | 6,147,457   | 8,071,692        | 18,136,771       | 25,05,319        |
| Malaria                            | Recurrent   | 885,645     | 1,122,533   | 1,223,896        | 5,993,725        | 7,848,315        |
|                                    | Capital     | 247,500     | 245,000     | 197,500          | 1,290,709        | 1,177,127        |
|                                    | Total       | 1,133,145   | 1,367,533   | 1,421,396        | 7,284,434        | 9,025,443        |
| Capital*1                          | Recurrent   | 956,058     | 1,122,221   | 1,171,551        | 4,637,219        | 6,091,493        |
|                                    | Total       | 956,058     | 1,122,221   | 1,171,551        | 4,637,219        | 6,091,493        |
| U Charge                           | Recurrent   | 303,621     | 386,814     | 394,241          | 1,654,124        | 2,252,705        |
|                                    | Total       | 303,621     | 386,814     | 394,241          | 1,654,124        | 2,252,705        |
| Public Nutrition                   | Recurrent   | 680,000     | 751,065     | 655,295          | 3,221,012        | 7,061,961        |
|                                    | Capital     | 100,000     | -           | -                | -                | -                |
|                                    | Total       | 780,000     | 751,065     | 655,295          | 3,221,012        | 7,061,961        |
| STI/HIV/AIDS<br>Safe blood supply  | Recurrent   | 1,732,928   | 2,077,251   | 2,344,750        | 11,012,779       | 19,743,715       |
|                                    | Capital     | 28,280      | 32,320      | 12,120           | 48,480           | 149,480          |
|                                    | Total       | 1,761,208   | 2,109,571   | 2,356,870        | 11,061,259       | 19,893,195       |
| Emergency Response<br>Preparedness | U Charge    | 12,218      | 12,453      | 12,692           | 57,731           | 125,843          |
|                                    | Recurrent   | 552,020     | 559,725     | 566,417          | 2,342,315        | 3,128,728        |
|                                    | Capital     | 423,750     | 11,250      | 11,250           | 177,554          | 220,019          |
| Grand Total<br>Special Health      | Total       | 975,770     | 570,975     | 577,667          | 2,519,870        | 3,348,748        |
|                                    | <i>2004</i> | <i>2005</i> | <i>2006</i> | <i>2007-2010</i> | <i>2011-2015</i> |                  |
|                                    | Recurrent   | 12,348,695  | 11,394,887  | 13,567,464       | 42,896,974       | 66,093,397       |
| Total                              | Capital     | 1,977,316   | 673,935     | 687,006          | 3,963,590        | 4,382,761        |
|                                    | U Charge    | 315,840     | 399,266     | 406,932          | 1,711,855        | 2,378,547        |

\*1 Integrated with TB and BPHS

| Special Health Program Summary Sheet | 2004              | 2005              | 2006              | 2007 - 2010       | 2011 - 2015       |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| SHP Recurrent Costs                  | 12,348,695        | 11,394,887        | 13,567,464        | 42,896,974        | 66,093,397        |
| SHP Capital Costs                    | 1,977,316         | 673,935           | 687,006           | 3,963,590         | 4,382,761         |
| SHP grand total                      | <b>14,326,011</b> | <b>12,068,822</b> | <b>14,254,470</b> | <b>46,860,564</b> | <b>70,476,159</b> |
| Possible User Charge                 | 315,840           | 399,266           | 406,932           | 1,711,855         | 2,378,547         |

### 6.3 Improving Quality of Hospital Services

Proposed Hospital Framework for Costing:

| Type of Hospital                 | Average number of Beds | Total number of Hospitals | Total no of Beds in 1386 (2006)<br>Target 80% of BPHS minimum ratios | Total no of Beds In 1389 (2010)<br>Target 90% | Total no of Beds in 1394 (2015)<br>Target 95% |
|----------------------------------|------------------------|---------------------------|--|---|---|
| District Hospital <sup>20</sup>  | 50                     | 60-93                     | 3,017  | 3,804   | 4,649   |
| Provincial Hospital in Provinces | 100                    | 27                        | 1,900  | 2,500   | 2,700   |
| Regional Hospital in Provinces   | 400                    | 4                         | 1,600  | 1,600   | 1,600   |
| Provincial Hospital in Kabul     | 350                    | 4                         | 1,400  | 1,400   | 1,400   |
| Regional Hospital in Kabul       | 400                    | 3                         | 1,200  | 1,200   | 1,200   |
| Tertiary Hospitals in Kabul      | 400                    | 1                         | 400  | 400   | 400   |

Phasing in of secondary and tertiary Hospital beds:

|   | 2004 | 2005 | 2006 | 2010/1389 | 2015/1394 |
|---|------|------|------|-----------|-----------|
| Total Provincial Hospital beds operational in the Provinces | 1700 | 1700 | 1900 | 2500      | 2700      |
| Total Regional Hospital beds operational in the Provinces   | 1600 | 1600 | 1600 | 1600      | 1600      |
| Total Provincial Hospital beds operational in Kabul         | 1400 | 1400 | 1400 | 1400      | 1400      |
| Total Regional Hospital beds operational in Kabul           | 1200 | 1200 | 1200 | 1200      | 1200      |
| Total Tertiary Hospital beds operational in Kabul           | 400  | 400  | 400  | 400       | 400       |

Assumptions and figures used to plan for Hospital Services. For the regional level Hospital: a 200-bed Hospital is costed. This caters for uncertainty in the expected size of regional Hospitals, and the possibility to offer e.g. two Regional Hospitals of 200 beds instead of one large 400-bed Regional Hospital. (A 200-bed Hospital is relatively more expensive than a 400-bed Hospital due to diseconomies of scale).

| Basic Planning Figures  |  | Figure                   |
|---|--|--------------------------|
| Population  |  | 22.2 Million (2003/1382) |
| Population Growth Rate  |  | 1.92% per year           |
| Costing of baseline figures                                       |  | (2003) US\$              |
| Hospital Cost Figures   |  |                          |
| Quantity of District Hospital Beds outside Kabul target by year 3 |  | 3,134                    |
| Quantity of District Hospital Beds outside Kabul by year 7        |  | 3,804                    |

<sup>20</sup> The District Hospital recurrent costs are budgeted under the BPHS.

|   |  |
|---|--|
| Quantity of District Hospital Beds outside Kabul by year 10                             | 4,251                                    |
| Quantity of Provincial Hospital Beds outside Kabul years 4-7                            | 1,700 to 2,700                           |
| Quantity of Provincial Hospital Beds outside Kabul years 8-12                           | 2,700                                    |
| Quantity of Provincial Hospital Beds in Kabul years 1-12                                | 1,400                                    |
| Quantity of Regional Hospital Beds outside Kabul years 1-12                             | 1,600                                    |
| Quantity of Regional Hospital Beds in Kabul years 1-12                                  | 1,200                                    |
| Quantity of Tertiary Hospital Beds in Afghanistan (Kabul) years 1-12                    | 400                                      |
| Total number of beds in Kabul (including tertiary) years 1-12                           | 3,000                                    |
| Total number of beds outside Kabul year 3   | 6,434                                    |
| Total number of beds outside Kabul year 7   | 7,904                                    |
| Total number of beds outside Kabul year 12  | 8,949                                    |
| Total number of beds in Afghanistan year 3  | 10,434                                   |
| Total number of beds in Afghanistan year 7  | 11,104                                   |
| Total number of beds in Afghanistan year 12   | 11,949                                   |
| Bed to 1,000 population ratio outside Kabul year 3                                      | 0.31                                     |
| Bed to 1,000 population ratio outside Kabul year 7                                      | 0.36                                     |
| Bed to 1,000 population ratio outside Kabul year 12                                     | 0.37                                     |
| Bed to 1,000 population ratio in Kabul year 3   | 1.03                                     |
| Bed to 1,000 population ratio in Kabul year 7   | 0.96                                     |
| Bed to 1,000 population ratio in Kabul year 12  | 0.87                                     |
| Medical Doctor to Bed Ratio (for all beds)  | 1 : 5                                    |
| Medical Doctor to Paramedical Staff Ratio (for all beds)                                | 1 : 3                                    |
| Salary for Hospital Staff   | Base Salary Scale for NGOs <sup>21</sup> |
| Average cost of one Provincial Hospital Bed per year (rehabilitation) <sup>22</sup>     | \$3,574                                  |
| Average cost of one Provincial Hospital Bed per year (construction)                     | \$4,275                                  |
| Average cost of one Regional Hospital Bed per year <sup>23</sup>                        | \$3,395                                  |
| Average cost of one Tertiary Hospital Bed per year <sup>24</sup>                        | \$4,645                                  |
| Contingency   | 5%                                       |
| Real Discount Rate  | 3%                                       |
| Inflation rate on capital and recurrent costs   | 0% per year                              |
| Inflation rate on salaries (costed in US\$)   | 0% per year                              |
| Annuity Factor for 20 years at the real discount rate                                   | 14.8775                                  |
| Annuity Factor for 5 years at the real discount rate                                    | 4.5797                                   |
| Annuity Factor for 2 years at the real discount rate                                    | 1.9135                                   |
| <b>Building Program Figures</b>   |  |
| Baseline figure for available health clinic infrastructure in Afghanistan <sup>25</sup> | 392                                      |
| Total number of Comprehensive Health Centres needed for 80% BPHS by year 3              | 313                                      |
| Total number of Basic Health Centres needed for 80% BPHS by year 3                      | 627                                      |
| Total number of Comprehensive Health Centres needed for 90% BPHS by year 7              | 380                                      |
| Total number of Basic Health Centres needed for 90% BPHS by year 7                      | 761                                      |
| Total number of Comprehensive Health Centres needed for 95% BPHS by year 12             | 442                                      |
| Total number of Basic Health Centres needed for 95% BPHS by year 12                     | 883                                      |
| Total number of CHC that need construction by year 3                                    | 125                                      |
| Total number of BHC that need construction by year 3                                    | 275                                      |
| Total number of CHC that need construction by year 7                                    | 125                                      |

<sup>21</sup> National Salary Policy for Non Governmental Organizations working in the Afghan Health Sector. Final version 6 August 2003.

<sup>22</sup> Average over 12 years; excluding initial rehabilitation or construction.

<sup>23</sup> *Ibid.*

<sup>24</sup> *Ibid.*

<sup>25</sup> Afghanistan National Health Resources Assessment, Ministry of Health/Management Sciences for Health. September 2002.

|  |                       |
|--|-----------------------|
| Total number of BHC that need construction by year 7   | 250                   |
| Total number of CHC that need construction by year 12  | 100                   |
| Total number of BHC that need construction by year 12  | 200                   |
| Total number of CHC that need construction year 1-12   | 350                   |
| Total number of BHC that need construction year 1-12   | 725                   |
| Total number of health centres that are needed by 1394/2015 to deliver 95% BPHS                | 1,325                 |
| Average cost of constructing and equipping one CHC <sup>26</sup>                               | \$165,000 (2003\$)    |
| Average cost of constructing and equipping one BHC   | \$90,000 (2003\$)     |
| Baseline figure for available District Hospital infrastructure in Afghanistan <sup>27</sup>    | 86                    |
| Total number of District Hospitals needed in Afghanistan <sup>28</sup>                         | 93                    |
| Quantity of Provincial Hospitals that need rehabilitation outside Kabul years 1-4              | 17                    |
| Quantity of Provincial Hospitals that need rehabilitation in Kabul years 1-3                   | 4                     |
| Quantity of Regional Hospitals that need construction outside Kabul years 3-7                  | 10                    |
| Quantity of District Hospitals that need construction outside Kabul years 1-12                 | 35                    |
| Unit cost of construction of one 50-bed District Hospital including equipment <sup>29</sup>    | \$1,150,000 (2003\$)  |
| Unit cost of construction of one 100-bed Provincial Hospital including equipment <sup>30</sup> | \$1,716,855 (2003\$)  |
| Unit cost of rehabilitation of one Provincial Hospital including equipment <sup>31</sup>       | \$666,855 (2003\$)    |
| Unit cost of rehabilitation of one Regional Hospital including equipment <sup>32</sup>         | \$824,093 (2003\$)    |
| Unit cost of rehabilitation of one Tertiary Hospital including equipment <sup>33</sup>         | \$2,644,583 (2003\$)  |
| Total cost construction and rehabilitation program until year 3 (2006/1385)                    | \$75,112,523 (2003\$) |
| Total cost construction and rehabilitation program year 4 - 7 (2007-2010)                      | \$79,859,840 (2006\$) |
| Total cost construction and rehabilitation program year 8 – 12 (2011-2015)                     | \$46,000,000 (2010\$) |

## 6.4 Human Resource Development

Assumptions used for costing the IHS/continuous education training program:

|  |             |
|--|-------------|
| Quantity of IHS that need rehabilitation             | 9           |
| Quantity of IHS that need building                   | 3           |
| Cost of one IHS rehabilitation                       | \$500,000   |
| Cost of one IHS construction                         | \$2,000,000 |
| Average cost of one Mamor (simple staff) per year    | \$720       |
| Average cost of one Faculty member per year          | \$6,000     |
| Average cost of one worker per year                  | \$1,560     |
| Average number of students per year Kabul IHS        | 960         |
| Average number of students per year Provincial IHS   | 480         |
| Annuity factor for 2 years at the real discount rate | 1.9135      |
| Annuity factor for 5 years at the real discount rate | 4.5797      |
| Inflation for salaries                               | 0%          |
| Inflation for other costs                            | 0%          |
| Average number of workers in Kabul IHS               | 70          |
| Average number of staff in one Provincial IHS        | 35          |

<sup>26</sup> Cost figures from LBG cost estimates for the construction of a standard CHC clinic according to USAID standards. Equipment cost from Crown Agency invoice. 400 clinics, a mix between CHCs and BHCs will be built during 2003-2006 and equipped.

<sup>27</sup> Ibid.

<sup>28</sup> Equitably distributed; the baseline survey documented a very inequitable distribution of District Hospitals throughout Afghanistan

<sup>29</sup> Assuming \$1 M for construction; the remainder equipment.

<sup>30</sup> Assuming \$1.5 M for construction; the remainder equipment.

<sup>31</sup> \$0.5 M for rehabilitation; the remainder equipment.

<sup>32</sup> \$0.5 M for rehabilitation; the remainder equipment.

<sup>33</sup> \$1.5 M for rehabilitation; the remainder equipment.

|  |         |
|--|---------|
| Total number of midwife graduates per year                 | 300     |
| Total number of nurse graduates per year                   | 664     |
| Total number of other paramedical staff graduates per year | 664     |
| Average lengths of one midwifery course                    | 2 years |
| Average length of one nurse course                         | 3 years |
| Average length of one paramedical staff course             | 2 years |

## 6.5 Administrative Reform and Capacity Building

Estimated number of staff in Public Administration after successful Priority Reform and Restructuring of the Ministry of Health:

|  | Item       | Av. Monthly | Total Monthly |
|--|------------|-------------|---------------|
|  |            | Cost (\$)   | Cost (#)      |
| Average no of prof staff after PRR Provincial Health Department  | 297        | \$262       | \$77,752      |
| Average no of support staff after PRR Provincial Health Departrn | 304        | \$80        | \$24,320      |
| Average no of prof staff after PRR GD Policy and Planning        | 102        | \$250       | \$25,500      |
| Average no of support staff after PRR GD Policy and Planning     | 30         | \$80        | \$2,400       |
| Average no of prof. staff after PRR GD Health Care & Promotion   | 60         | \$350       | \$21,000      |
| Average no of support staff after PRR GD Health Care & Prom.     | 30         | \$80        | \$2,400       |
| Average no of prof. staff after PRR GD Admin and Management      | 80         | \$350       | \$28,000      |
| Average no of support staff after PRR GD Admin and Managemen     | 30         | \$80        | \$2,400       |
| Total professional staff after PRR public administration         | 539        |             |               |
| Total support staff after PRR public administration              | 394        |             |               |
| <b>Total MoH staff after PRR public administration</b>           | <b>933</b> |             |               |

Basic costing figures and assumptions related to the Priority Reform and Restructuring (PRR) of the Ministry of Health:

|   |                    |
|---|--------------------|
| Total monthly staff cost MoH public administration                                  | <b>\$183,772</b>   |
| Total annual staff cost MoH public administration                                   | <b>\$2,205,260</b> |
| Annual inflation on salaries  | <b>0%</b>          |
| Annual inflation on capital cost  | <b>0%</b>          |
| Annual inflation on other recurrent costs   | <b>0%</b>          |
| Annual Staff Cost PRR GD Policy and Planning  | <b>\$334,800</b>   |
| Annual Staff Cost PRR GD Health Care & Promotion                                    | <b>\$280,800</b>   |
| Annual Staff Cost PRR GD Administration and Management                              | <b>\$364,800</b>   |
| Annual Capital Cost PRR Provincial Health Department 2006                           | <b>\$324,442</b>   |
| Average annual Capital Cost Prov Health per professional staff by 2006              | <b>\$2,748.19</b>  |
| Annual Capital Cost PRR GD Policy and Planning                                      | <b>\$280,315</b>   |
| Annual Capital Cost PRR Health Care & Promotion                                     | <b>\$164,891</b>   |
| Annual Capital Cost PRR Administration and Management                               | <b>\$219,855</b>   |
| Annual other Recurrent Cost PRR Provincial Health Department 2006                   | <b>\$742,011</b>   |
| Average annual other Recurrent Cost PRR Prov. Health per professional staff by 2006 | <b>\$1,194</b>     |
| Annual other Recurrent Cost PRR Policy and Planning                                 | <b>\$121,783</b>   |
| Annual other Recurrent Cost PRR Health Care & Promotion                             | <b>\$71,637</b>    |
| Annual other Recurrent Cost PRR Admin and Management                                | <b>\$95,516</b>    |

Basic assumptions related to the 26,000 MoH staff on the payroll in 2003/1382:

Years 1: same quantity of staff      1.00

|                       |      |
|-----------------------|------|
| Year 2: 75%           | 0.75 |
| Year 3: 50%           | 0.50 |
| Years 4-7: 50% staff  | 0.50 |
| Years 8-12: 25% staff | 0.25 |

Basic assumptions used for the Capacity Building Program. Years 1-3 (2004-2006) will be the 'Full Program'. This consists of 100% Technical Assistance, 100% Workshops, 100% Overseas Courses and 100% Equipment. Years 4-7 (2007-2010) will be a 'Three-Quarter Program'. This consists of 75% TA; 100% Workshops, 100% Overseas Courses and 75% Equipment. Years 8-12 (2011-2015) will be a 'Half Program'. This consists of 50% TA, 100% Workshops, 100% Overseas Courses and 50% Equipment.

|  | Inflation<br>0% |
|--|-----------------|
| Annuity factor for 2 years at the real discount rate     | 1.9135          |
| Annuity factor for 5 years at the real discount rate     | 4.5797          |
| International Advisor fully loaded per year MSH estimate | \$300,000       |
| Local Advisor fully loaded per year per rough estimate   | \$24,000        |
| Years 1-3 'Full TA program'                              | 1.00            |
| Years 4-7 '3/4 TA program'                               | 0.75            |
| Years 8-12 '1/2 TA program'                              | 0.50            |

## **7 Implementation Strategies, Institutional and Financial Arrangements**

*The implementation strategy of the Ministry of Health is as follows:*

1. Subcontracting Non-Governmental Organizations to deliver the BPHS, while retaining a regulating, coordinating, monitoring and evaluating role;
2. Use special programs to reinforce the effect of services offered through the Basic Package; special programs are managed, predominantly, through UN agencies;
3. Secondary and Tertiary Hospitals managed through the MoH;
4. Train sufficient paramedical staff through the IHS's, especially midwives, to enable the health system to implement the BPHS;
5. Priority Reform and Restructuring of the MoH public administration to enhance effectiveness and efficiency.

*Sequencing of longer term versus shorter term actions:*

Urgent funding is required for the BPHS; funding that can be absorbed rapidly if made available, by the NGOs. The only restraint on implementing a fully effective BPHS is the lack of qualified female health workers, especially community midwives. The BPHS will be phased in as follows: by year three 80% of the minimum ratios implemented; by year seven 90% of the minimum ratios implemented and by year ten 95% of the minimum ratios implemented.

Special programs can be carried out immediately if sufficient funding is made available.

The MoH will take on the secondary and tertiary Hospitals. If sufficient funding is made available, 3,000 beds in Kabul and 3,300 beds in the Provinces can be taken on immediately. Facilities, staff and basic equipment is available. A Priority Reform and Restructuring of the secondary and tertiary Hospital sector would need to be carried out. This would pose a surmountable problem as a similar exercise has already been conducted in the central Ministry. The facilities in which these beds are located would need rehabilitation. The 1,000 additional provincial beds will be phased in years 6-10; two new Provincial Hospitals are planned for each year.

The twelve Institutes of Health Sciences (IHS) will aim at newly training 2,400 midwives (through two year courses), 4,700 nurses (through three-year courses) and 5,300 other paramedical staff (through two-year courses) by 2015. Nine existing IHS's will be operational as of 2004; in 2013 three additional IHS's will be built. Thousands of other health professionals will follow postgraduate training courses and continuous education courses to refresh and upgrade their skills.

Priority Reform and Restructuring for the Provincial Health Department was approved Dec 9<sup>th</sup> 2003, and the PRR for the Policy and Planning General Directorate of the central Ministry was approved in the second week of January 2004. It is planned to have two additional General Directorates in the central Ministry undergo similar reforms during 2004/1383.

*Capacity building strategy; immediate and medium term.*

The exact capacity building plan for the MoH has not yet been designed, although it will build on progress to-date and on-going initiatives that are giving the MoH the ability to fulfil its new

responsibilities. A working group will start work on a capacity building plan in January 2004. The probable outcome will be a mix of in-country seminars and workshops; tailor made courses for provincial and central MoH staff; a selection of overseas conferences, meetings, and training courses for MoH senior staff; on-the-job mentoring, coaching, and advising; and, material and financial support. The latter will be included as they must be combined with human resources to produce productive institutions. For a more detailed discussion of identified technical assistance needs, see annex 5.

***Necessary institutional and financial arrangements and required sector reforms.***

Currently, the Ministry of Health budget is managed by the Ministry of Finance (MoF). Previously, the MoH managed its own budget, which it is unable to do at the moment. The financial systems in the MoH have been evaluated.<sup>34</sup> The report came up with seven recommendations on budgeting, 12 recommendations on Accounting and Financial Reporting, one recommendation on Internal Control and one recommendation on Audit. The report also proposed a new staffing pattern for the Finance Section. A Chief Financial Officer will be seconded by the MoF to the MoH to help with installing the financial management system. A Priority Reform and Restructuring of the Administration and Management section will hopefully go a long way towards improving this vital element of the MoH public administration.

***Monitoring and Evaluation.***

The MoH will carry out systematic monitoring and evaluation of its programs across the country. As at present, the MoH will work with its partners to ensure objective (“third party”) evaluation and at the same time to build the needed capacity of the MoH at central and field levels.

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<sup>34</sup> Appraisal Report on Financial Systems in the Ministry of Health, Oxford Policy Management, December 2003.

## **8 Development Program and Budget**

Afghanistan is in the early post-conflict rehabilitation phase. After more than twenty years of war, human and social capital has been eroded and destroyed. The health sector reflects the disruption of the role of the state in health service provision and the impact of over twenty years of humanitarian aid efforts.

The past two years however, have seen the evolution of a solid foundation on which a new Health System can be built. Major Health Policies and Strategies have been formulated, and donors have been coordinating their efforts to a very large extent with the Ministry of Health, who is widely seen as the steward of the Health System.

The overall design of the Health and Nutrition Sector Development Program and Budget for the next twelve years is focused on achieving two Millennium Development Goals (MDGs). These Goals are:

Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate; the current under-five mortality rate is 257/1,000;

Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio; the current Maternal Mortality Ratio is 1,600/100,000 life births.

Afghanistan has a very high baseline; both the Child Mortality and Maternal Mortality are among the highest in the world. A survey on maternal mortality conducted in 2002, found that in Badakhshan province, the maternal mortality was as high as 6,507/100,000 life births, the highest ever recorded figure.

The two MDGs can never be reached without a considerable injection of international donor monies. However, to assess the financial sustainability of the Development Program, the overall costs by 2015/1394 are put into perspective by comparing these with the expected Public Health Budget originating from the Government's domestic resources. For this assessment, it is assumed that:

1. The 2015/1394 GDP will have reached \$450 (2015 US\$) per capita per year;
2. That the Government's own contribution to the health sector will amount to 1-1.5% of the GDP;
3. That 50% of the overall health budget by 2015/1394 will be funded by international donors (a situation not unlike that in other very poor countries).

Using the lower (1%) share of the GDP accruing to the Health Sector, the total budget available to Health would be 238.5 M \$ (2015 US\$). Using the higher share (1.5%) would lead to a total budget of 375.75 M \$ (2015 US\$).

The proposed health sector program, by year 12 (2015/1394), will cost an estimated 269.5 M \$ (2015 US\$).<sup>35</sup> This forecast indicates that, even when given the lower share (1%) of the expected

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<sup>35</sup> This costing has applied (i) an annual inflation rate of 1.5% to salaries, (ii) an annual inflation rate of 3% on capital costs and (iii) an annual inflation rate of 3% to other recurrent costs.

GDP, the Health and Nutrition Sector program is financially sustainable with a 50% donor contribution.

The Health and Nutrition Sector has five sub-programs:

- (1) Basic Package of Health Services
- (2) Special Programs
- (3) Improving Quality of Hospital Services
- (4) Human Resource Development
- (5) Administrative Reform and Capacity Building

## ***8.1 Basic Package of Health Services***

The new Afghan Ministry of Health (MoH) framework, called the Basic Package of Health Services (BPHS), has four layers and consists of:<sup>36</sup>

- One Health Post per 1,000-1,500 Afghans; the first layer;
- One Basic Health Centre per 15,000-30,000 population; the second layer;
- One Comprehensive Health Centre per 30,000-60,000 population; the third layer;
- One 50-bed District Hospital per 100,000-300,000 population; the fourth layer;<sup>37</sup>

Afghanistan figures at the bottom of the Human Development Index. Afghanistan's health indicators such as the Child Mortality Rate (257 deaths per 1,000 children; one in four Afghan children die before reaching the age of five years) and the Maternal Mortality Ratio (1,600 women die due to causes related to childbirth per 100,000 life births) are one of the worst in the world. Apart from resource constraints, trained female health staff, especially trained community midwives, are absent in rural remote areas and would need to be trained at a considerable space to enable the Health System to staff its rural clinics.

The Ministry of Health has chosen to subcontract Non Governmental Organizations as its main strategy to implement the Basic Package of Health Services. This is a new strategy for Afghanistan, in which the state used to be the main provider of health care services. Instead of being the main service provider, to a large extent, the MoH will take on new roles and tasks that involve Regulating, Coordinating, Monitoring and Supervising NGOs and the private sector.

The planning for the implementation of the BPHS is thoroughly equitable; instead of planning for massive secondary and tertiary hospitals, especially in Kabul, the MoH has decided to secure funding for the BPHS and to design a lean and efficient secondary and tertiary hospital system (see further under 'Improving Quality of Hospital Services'). The projected resource allocation for service delivery for 2015 will be 87% for the BPHS and 13% for secondary and tertiary Hospitals (\$134.53 M for BPHS versus \$20.92 M for secondary and tertiary Hospitals). If this situation materializes 12 years down the line, it will be in stark contrast to the situation in other very poor countries, in which frequently, up to 60% of the Health recurrent budget is consumed by the Hospital sector.

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<sup>36</sup> A Basic Package of Health Services for Afghanistan, Transitional Islamic Government of Afghanistan, Ministry of Health, March 2003/1382.

<sup>37</sup> The first level referral hospital.

Basic Curative and Preventive Services will be provided to Afghans with a focus on women and children. The BPHS is designed with an eye on resource constraints; it is not a luxurious package at all, however, it contains some of the most cost-effective treatments that are known to mankind. Some of these are: immunization against common childhood illnesses, treatment of diarrhoea and cough and cold, provision of Vitamin A, treatment for worms, treatment for Tuberculosis and pre and post natal care.

The BPHS has been costed.<sup>38</sup> The total cost, based on a population of 300,000 Afghans, is estimated at \$4.55 (2001) per capita per year. The cost of the first layer is estimated at \$1.13 per capita per year, the second and third layers are estimated at \$2.41 per capita per year, and the cost of the fourth layer, the Community Based Health Care (CBHC) system, is estimated at \$1.01 per capita per year.

International calculations point at a cost of delivering a package of essential services of \$12 per capita per year (\$1991), up to \$34 per capita per year (\$2001).<sup>39</sup>

The costing of this BPHS, of \$4.55 per capita per year in 2001 US\$, is fairly accurate; the evidence so far, with the costing of Province wide interventions, points at an average cost of about \$3.80 (2003 US\$) per capita per year to deliver the minimum BPHS ratio. For interventions that cover districts, or clusters of districts, this cost does not hold; far higher sums are needed for this type of intervention.

Currently, only about 40% of the population, or 8.88 M, is covered by this BPHS. The reason for this is lack of monies; only about \$42.9 M is available for 1383 (2004) to deliver the basic package, whilst \$87.38 M would be necessary to reach the target of 80% of the BPHS provided to the Afghan population (see annex 3 Detailed Costing Calculations and Tables).

The targets for implementing the minimum ratios of the BPHS are: 80% for year 3; 90% by year 7 and 95% by year 10.

In year 1385 (2006), \$0.25 per capita will be added to pay for community based disability and mental health care. This sum is a guesstimate informed by an absolute lack of monies. This small sum would still provide \$4.7 M per year for these second tier components of the BPHS.

For the first three years \$323.01 M is necessary to provide 80% of the Afghan population with the BPHS; there is a funding shortfall of \$178.38 M for the first three years. For the first 12 years, the total funds required delivering the BPHS will be \$1,519.96 M.<sup>40</sup>

The expansion of the BPHS will have to be accompanied by a well-planned construction programme for Health Centres and District Hospitals. The September 2002 National Health Resources Assessment found 86 District Hospitals and 392 Health Clinics with purpose built structures. Most facilities were ill-distributed. Thirty five 50-bed District Hospitals, 350 Comprehensive Health Centres and 725 Basic Health Centres will have to be constructed over a

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<sup>38</sup> Costing of the Basic Package of Health Services for Afghanistan, Management Sciences for Health, March 31, 2003.

<sup>39</sup> World Development Report; Investing in Health. World Bank 1993 and Commission on Macroeconomics and Health (CMH), WHO December 2001.

<sup>40</sup> This costing assumes that there will be a 0% annual inflation on the dollar and a 1.92% population growth rate. In addition, this costing includes capital investments in constructing the service delivery network; rural 1,075 rural Health Clinics and 35 first level referral hospitals.

10 year period in order to meet the service delivery targets. Four hundred clinics are planned to be constructed over the coming three years (for which funding has been identified), many more are needed over the coming 10 years.

#### Budget for Implementation of the BPHS 2004/1383-2015/1394

The Capital Costs include initial equipping of the facilities; the recurrent cost related to maintenance and replacement is budgeted under the BPHS.

| <b>Item</b>   | <b>2004/1383<br/>(M US\$)</b> | <b>2005/1384<br/>M (2003US\$)</b> | <b>2006/1385<br/>M (2003US\$)</b> | <b>2007/1386<br/>-<br/>2010/1389<br/>M<br/>(2003US\$)</b> | <b>2011/1387 -<br/>2015/1394<br/>M<br/>(2003 US\$)</b> |
|---|-------------------------------|-----------------------------------|-----------------------------------|---|--|
| BPHS  | 87.38                         | 89.05                             | 95.46                             | 450.60  | 645.22   |
| Capital Costs<br>(construction)<br>CHCs (QTY)                     | 8.25 (50)                     | 8.25 (50)                         | 4.12 (25)                         | 20.63 (125)   | 16.50 (100)  |
| Capital Costs<br>(construction)<br>BHCs (QTY)                     | 9.00 (100)                    | 9.00 (100)                        | 6.75 (75)                         | 22.50(250)  | 18.00 (200)  |
| Capital Costs<br>(construction)<br>District<br>Hospitals<br>(QTY) | 0                             | 0                                 | 5.75 (5)                          | 23.00 (20)  | 11.50 (10)   |
| <b>Grand Total</b>  | <b>104.63</b>                 | <b>106.3</b>                      | <b>112.08</b>                     | <b>516.73</b>   | <b>676.22</b>  |

## **8.2 Special Programs**

- (a) Expanded Programme on Immunization (EPI)
- (b) Malaria and Leishmaniasis
- (c) Public Nutrition
- (d) Tuberculosis,
- (e) Emergency Preparedness and Response
- (f) HIV/AIDS

### **(a) Expanded Programme on Immunization**

The Expanded Programme on Immunization (EPI) has four objectives; first, to Eradicate Poliomyelitis (Polio), second to Eliminate Tetanus, third to Reduce Measles Mortality and Morbidity and four, to Sustain Immunization gains in Afghanistan.

**Polio Eradication:** The world is close to reaching the goal of polio eradication. Transmission of wild poliovirus remains only in four countries; Niger, India, Pakistan, and Afghanistan. Of these countries Afghanistan is making significant progress in polio eradication. With continued support of the international community, interruption of wild poliovirus transmission in Afghanistan will take place soon.

Polio eradication campaigns during the past couple of years have managed to reach more than six million children aged less than five years (at least 95%) in each round of National Immunization Days (NIDs) in Afghanistan. The number of confirmed polio cases has reduced dramatically (from 150 cases in 1999 to seven cases in 2003).

Vitamin A supplementation has been administered to children aged between 6-59 months twice a year during the NIDs. The number of children given supplemental doses of Vitamin A has increased from 4.3 million in May 2001 to over 5.2 million in April 2003. This intervention alone is estimated to have decreased the under- 5 mortality by 15-20%.

**Tetanus Elimination:** Beside routine EPI, NIDs, and Measles campaigns, the Ministry of Health developed a three year (2003-2005) Plan of Action to eliminate the maternal and neonatal tetanus from Afghanistan with the technical and financial support from UNICEF and WHO. As a pilot scheme, close to a million (838,299) women of child bearing age were targeted with three doses of Tetanus Toxoid (TT) Vaccine in 2003 in four major cities (Kabul, Mazar, Jalalabad and Kandahar) and 8 rural districts of Kabul province. This will increase the protection of mothers and their newborns from the silent but deadly tetanus. The first or pilot phase of the campaign for maternal and neonatal tetanus elimination started in February 2003 with enthusiastic backing from President Hamid Karzai. In a televised message he appealed to all women of childbearing age to receive TT vaccinations during the campaign. In 2003, more than 90% of the targeted women were vaccinated with 3 doses of TT. Due to the very encouraging coverage the Ministry of Health decided to conduct countrywide TT campaigns in 2004 covering 4 million women of childbearing age (WCBA).

**Reduce measles mortality:** In Afghanistan a country wide measles mortality reduction campaign was conducted in 2002. Approximately 11.5 million children aged between six months and 12 years have been immunized against measles, saving an estimated 30,000 lives annually. In 2003, 5.4 million children aged between nine months to 59 months received measles vaccines during the month of June. Preliminary data from EPI surveillance sites indicates a significant reduction in the number of reported measles cases (3,609 cases in 1999 to only 718 cases in 2003).

**Achieve and sustain routine coverage:** During 2002 and 2003 progress has been made towards rebuilding the structure of EPI to provide regular vaccination to Afghan women and children. New fixed centres have been established to bring EPI services closer to communities, along with the training of vaccinators. Also, some outreach activities have been established to regularly deploy vaccinators in poorly served districts. At the end of 2003 more than 800 fixed sites established compared to 385 in 1999. They are located in all provinces and most of the districts. More than 1,400 vaccinators have been trained and dedicated to providing immunization services throughout the country. There has been increased trend of coverage observed between the years.

## **OBJECTIVES**

### (1) Eradicate Poliomyelitis

| <b><i>Sub-project objective</i></b>                | <b><i>Expected results 2004 -2006</i></b>   | <b><i>Expected results 2006 -2010</i></b>   |
|--|---|---|
| To interrupt wild polio virus transmission by 2004 | <ul style="list-style-type: none"> <li>• 100% children under five will receive polio vaccine in each round of NID</li> <li>• Indigenous transmission</li> </ul> | <ul style="list-style-type: none"> <li>• Zero cases of polio for consecutive three years.</li> <li>• Eradication of polio within</li> </ul> |

| <i><b>Sub-project objective</b></i>             | <i><b>Expected results 2004-2006</b></i>                                  | <i><b>Expected results 2006 -2010</b></i>  |
|---|---|--|
|   | will be stopped.  | this period.   |
| To establish sensitive AFP surveillance system. | Achieve more than 80% coverage in all the 10 AFP surveillance indicators. | Efficient surveillance system in place to detect each and every AFP cases in time. |

(2) Eliminate maternal and neo-natal tetanus

| <i><b>Sub-project objective</b></i>                             | <i><b>Expected results 2004-2006</b></i>  | <i><b>Expected results 2006 -2010</b></i>   |
|---|---|---|
| To reduce number of neo-natal tetanus case <1/1000 live births. | Vaccinate more than 90% childbearing age women with at least 3 doses of TT.   | Achieve elimination status (less than one case/100 LB) in all the districts and sustain the status.                             |
| To ensure safe delivery practice in all household.              | <ul style="list-style-type: none"> <li>• More than 60% of the delivery will be conducted by trained birth attendant.</li> </ul> | <ul style="list-style-type: none"> <li>• More than 90% of the delivery will be conducted by trained birth attendant.</li> </ul> |

(3) Reduction of measles deaths (by 95%) and cases (by 90%)

| <i><b>Sub-project objective</b></i>  | <i><b>Expected results 2004-2006</b></i>  | <i><b>Expected results 2006 -2010</b></i>  |
|--|---|--|
| To vaccinate all under five children with two doses of measles vaccines (Through mass campaign, catch-up and follow up campaigns). | Achieve high coverage of measles vaccination (more than 90%) to all under five children | Achieve elimination status through sustaining high coverage (more than 90%) to all under five children |

(4) Achieve and sustain 80% routine vaccination coverage

| <i><b>Sub-project objective</b></i>                              | <i><b>Expected results 2004-2006</b></i>                                  | <i><b>Expected results 2006 -2010</b></i>   |
|--|---|---|
| To vaccinate all under one children and complete full schedules. | Achieve 70% coverage for all the six antigens (fully immunized children). | Achieve and sustain 80% coverage for all six antigens (fully immunized children). |

## **TARGETS**

(1) Eradicate Poliomyelitis

| <i><b>Service delivery target/indicators</b></i> | <i><b>Baseline data in 2002-2003</b></i> | <i><b>Service delivery Target for 2010</b></i>                         | <i><b>Service delivery Target for 2015</b></i> |
|--|--|--|--|
| No of polio cases in the country                 | 10 laboratory confirmed polio cases      | Zero cases for consecutive three years and eligible for certification. | Polio free Afghanistan                         |

(2) Eliminate maternal and neo-natal tetanus

| <i>Service delivery target/indicators</i>                 | <i>Baseline data in 2002-2003</i>                                       | <i>Service delivery Target for 2010</i>  | <i>Service delivery Target for 2015</i>   |
|---|---|--|---|
| No of neo-natal tetanus cases per 1000 live birth         | 6 per 1000 live births.   | <1/1000 live births in each and every districts of the country (achieve elimination status). | <1/1000 live births in each districts of the country (elimination status will sustain). |
| Number of delivery conducted by trained birth attendants. | < 15 % of all deliveries will be conducted by trained birth attendants. | >60 % of all deliveries will be conducted by qualified birth attendants.                     | >80 % of all deliveries will be conducted by qualified birth attendants.                |

(3) Reduction of measles deaths (95%) & cases (90%)

| <i>Service delivery target/indicators</i>                        | <i>Baseline data in 2002-2003</i> | <i>Service delivery Target for 2010</i>              | <i>Service delivery Target for 2015</i> |
|--|-----------------------------------|--|---|
| No of sentinel sites report measles cases                        | 50% of the sites                  | 100% of the sites will report measles cases in time. | >10 TFU training Centres                |
| Active surveillance of measles cases in all the fixed facilities | 0                                 | >70 %  | >90 %                                   |

(4) Achieve and sustain 80% routine vaccination coverage

| <i>Service delivery target/indicators</i>            | <i>Baseline data in 2002-2003</i> | <i>Service delivery Target for 2010</i>  | <i>Service delivery Target for 2015</i>          |
|--|-----------------------------------|--|--|
| Number of fully immunized children with all antigens | Less than 25%                     | >80% under one child will be fully immunized with all six antigens. (By 2005, hepatitis to be added as seventh antigen.) | Fully immunized status (>80%) will be sustained. |

The following is the budget for the EPI 2004-2015

| EPI                        | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010 (1386-1389) | 2011-2015 (1390-1394) |
|----------------------------|------------|------------|------------|-----------------------|-----------------------|
| Total Program costs (M \$) | 8.72       | 6.15       | 8.07       | 18.14                 | 25.06                 |
| EPI                        | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010 (1386-1389) | 2011-2015 (1390-1394) |

|                                 |             |             |             |             |             |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|
| <b>Capital Costs<br/>(M \$)</b> | <b>1.18</b> | <b>0.39</b> | <b>0.47</b> | <b>2.45</b> | <b>2.84</b> |
|---------------------------------|-------------|-------------|-------------|-------------|-------------|

## (b) Malaria and Leishmaniasis

In Afghanistan an estimated 3 million cases of malaria occur each year. The total reported cases during 2002 from the national malaria program and Non Governmental Organizations were 600,000. The reason for such an enormous gap between estimated and reported cases ought to be the disruption of the health information system and/or on the poor access to health care services.

Malaria incidence is increasing, and an estimated 60% of the population, some 17.5 million people lives in areas in which there is a risk of malaria. Outbreaks are now reported from many parts of the country, including at high altitudes where they were not previously recorded. The proportion of Falciparum infections has increased, now accounting for some 20% of recorded infections.

Although most costs related to malaria treatment are estimated in the Basic Package of Health Services, the costs for ensuring the availability of good quality Insecticide treated Bed Nets (ITNs) are estimated in this section.

### Objectives and Results of Malaria Control Program

| <i>Sub-project objective</i>   | <i>Expected results 2004-2006</i>   | <i>Expected results 2006-2010</i>   |
|--|---|---|
| <b>Populations at risk of malaria will have access to prompt and appropriate treatment of malaria.</b> | <b>Malaria morbidity reduced by 20%</b>   | <b>Malaria morbidity reduced by 50%</b>   |
| <b>Personal protection measures will be made available and affordable for high risk areas</b>          | <b>20% of population at high risk of malaria protected by sleeping under insecticide treated bed nets</b> | <b>50% of population at high risk of malaria protected by sleeping under insecticide treated bed nets</b> |

### Targets of Malaria Control Program

| <i>Service delivery target/indicators</i>   | <i>Baseline data in 2002-2003</i>   | <i>Service delivery Target for 2010</i>  | <i>Service delivery Target for 2015</i>  |
|---|---|--|--|
| <ul style="list-style-type: none"> <li>(i) % of the of health facilities reporting no disruption of stock of anti-malarial drugs for more than one week during the previous three months</li> <li>(ii) % of health facilities able to confirm malaria diagnosis according to the national policy</li> <li>(iii) % of patients with uncomplicated malaria</li> </ul> | <p>60% of the national populations live at risk of malaria. 26% of them live in high risk areas</p> <p>Current estimates suggest 3 million malaria cases occur during the 8-month transmission period (April-November) equivalent to one malaria case every 7</p> | <ul style="list-style-type: none"> <li>(i) 50% of health facilities in endemic areas receive adequate and uninterrupted flow of anti malarial drugs</li> <li>(ii) 50% of health facilities in endemic areas able to provide prompt, quality disease management according to the national policy</li> </ul> | <ul style="list-style-type: none"> <li>(i) 100% of health facilities in endemic areas receive adequate and uninterrupted flow of anti malarial drugs and diagnostic supplies</li> <li>(ii) 100% of health facilities in endemic areas able to provide prompt, quality disease management according to the national policy</li> </ul> |

| <i>Service delivery target/indicators</i>   | <i>Baseline data in 2002-2003</i>  | <i>Service delivery Target for 2010</i>  | <i>Service delivery Target for 2015</i>  |
|---|--|--|--|
| getting correct treatment at health facility and community levels according to national guidelines within 24 hrs of onset of symptoms in target areas | seconds<br><br>No adequate services in most endemic areas  |  |  |
| % of individuals and families sleep under ITNs every night throughout the transmission season   | 6 million nets are required to cover the entire at-risk population 500,000 nets already distributed between 1993- 2003 | - Scaling-up ITNs distribution to cover 50% population at risk through subsidized selling<br>- Pump-priming the private sector | All population living in malaria endemic areas covered by ITNs through social marketing with low subsidy or through the private sector with full cost recovery |

**Commitment requirements for each project already identified (1383,1384,1385,1386-89)**

| Malaria                    | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010 (1386-1389) | 2011-2015 (1390-1394) |
|----------------------------|------------|------------|------------|-----------------------|-----------------------|
| Total Program costs (M \$) | 0.96       | 1.12       | 1.17       | 4.64                  | 6.09                  |

| Malaria              | 2004(1383)                         | 2005(1384)                         | 2006(1385)                         | 2007-2010 (1386-1389)              | 2011-2015 (1390-1394)              |
|----------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Capital Costs (M \$) | <i>Integrated with BPHS and TB</i> |

## (c) Public Nutrition

### *Public Nutrition and linkages to Food Security*

The nutritional situation in Afghanistan is characterized by an extremely high prevalence of chronic malnutrition, also referred to as stunting which is estimated to be as 45-59%, high mortality rates among children less than five years of age and widespread occurrence of micronutrient deficiency diseases.

Despite severe food insecurity, levels of acute malnutrition or wasting remain relatively low, between 6 and 10%. Results from nutrition and health surveys suggest that women, infants less than six months and young children between 6 months and 24 months, are at particular nutritional risk in Afghanistan. The general micronutrient status of the population is poor, largely as a result of the lack of diversity of food in the diet and over-reliance on the staple food commodity wheat. Iodine deficiencies disorders are highly prevalent, particularly in mountainous provinces in the north, north-western and central highlands of the country. The prevalence of clinical cases of goitre, as reported by district-level surveys, is reported to be between 30% - 70% and access to iodized salt was estimated to be <1% during 2001. Localized data for other micronutrient deficiencies show prevalence of 50-70% anaemia among young children and their mothers and up to 20% night blindness among women. In addition, over the past few years outbreaks of scurvy have occurred repeatedly in the winter months with severe clinical signs observed in up to 10% during the winter season. The underlying causes for malnutrition, including food security, an inadequate social and care environment, a poor health environment and lack of access to health care are diverse throughout the country. For example, increasing levels of acute malnutrition or wasting are consistently reported during the hot summer season in urban areas, largely caused by a poor health environment and increase in diarrhoeal disease.<sup>41</sup>

Public Nutrition is a key priority in the overall Health Policy of the MoH. The overall goal of the MoH is “.. to reduce malnutrition of all types including micronutrient deficiency diseases through integrated and coordinated programming. In collaboration with partners, the MOH will take leadership in identifying, preventing and reducing malnutrition....”. (*Public Health Policy, April 2002 and Public Nutrition Policy and Strategy, November 2003*). The MoH will promote food and nutrition security for all by adopting a public nutrition approach involving broad-based multi-sectoral interventions that address the underlying causes of malnutrition - including food insecurity, inadequate social and care environment, inadequate access to health services and poor health environment. These policies are strategies are described in detail in the *Public Nutrition Policy and Strategy* (November 2003). Public Nutrition strategies will largely be implemented through the Basic Package of Health Services (BPHS), described by four important components of assessment, prevention and treatment of malnutrition as well as surveillance. The services delivered through the BPHS are being supported and complemented by central and provincial level interventions such as installation and establishment of eight iodizing salt factories, training centres for treatment of severe malnutrition in provincial-level hospitals and small and large-scale fortification of wheat. Legislation procedures which are underway, including the development of National Code for Marketing of Breast-milk Substitutes and legislation for Salt Iodization will further strengthen the implementation of these nutrition programmes.

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<sup>41</sup> Taken from Public Health Nutrition Policy, MoH, November 2003.

The BPHS alone is inadequate to address the malnutrition in the country therefore, mechanisms for collaboration and integration on food security including food aid, have been defined with other Ministries, specifically the Ministry of Agriculture and Animal Husbandry (MAAH) as well as the Ministry of Rural Rehabilitation and Development (MRRD).

#### Costing Estimation of the Public Health Nutrition Program

Commitment requirements for each project already identified (1383, 1384, 1385 and 1386-89)

| <b>Public Nutrition</b>           | <b>2004(1383)</b> | <b>2005(1384)</b> | <b>2006(1385)</b> | <b>2007-2010<br/>(1386-1389)</b> | <b>2011-2015<br/>(1390-1394)</b> |
|-----------------------------------|-------------------|-------------------|-------------------|----------------------------------|----------------------------------|
| <b>Total Program costs (M \$)</b> | <b>0.78</b>       | <b>0.75</b>       | <b>0.66</b>       | <b>3.22</b>                      | <b>7.06</b>                      |

| <b>Public Nutrition</b>     | <b>2004(1383)</b> | <b>2005(1384)</b> | <b>2006(1385)</b> | <b>2007-2010<br/>(1386-1389)</b> | <b>2011-2015<br/>(1390-1394)</b> |
|-----------------------------|-------------------|-------------------|-------------------|----------------------------------|----------------------------------|
| <b>Capital Costs (M \$)</b> | <b>0.1</b>        | *                 | *                 | *                                | *                                |

#### **(d) Tuberculosis**

According to the WHO Tuberculosis (TB) country profile, Afghanistan is the country with the highest burden of Tuberculosis in the Eastern Mediterranean Region and one of the 22 countries in the world with the highest burden of Tuberculosis. With an estimated annual rate of infection of 2.25%, the incidence of sputum positive cases is calculated at 143 patients per 100,000 per year, and all active cases at 319 per 100,000 per year. The WHO estimates that 70,000 new cases and 20,000 deaths occur annually. In Afghanistan 65-70% of all confirmed cases are women (the reason for this is unclear).

In 2002, the Directly Observed Tuberculosis Treatment (DOTS) program covers 31% of the population, with facilities in 17 provinces. This is a generous estimate of population coverage, as having facilities in the centre of a province does not ensure access to treatment for the whole population. Expansion of the DOTS program is only way to tackle the burden of disease caused by Tuberculosis. DOTS should be delivered through the Basic Package of Health Services (BPHS), and as such represents an essential contribution to the package of basic health services offered to the Afghan people.

Most costs related to the DOTS implementation are calculated under the per capita lump sum for the BPHS; however, some costs fall outside the BPHS, i.e. TB drugs (central procurement), food incentives (WFP contributions), special training for DOTS implementation and reference laboratories. These costs are provided in this section.

#### **Objectives and Expected Results of Tuberculosis Control Programs.**

| <i><b>Sub-project objective</b></i>  | <i><b>Expected results 2004-2006</b></i>                           | <i><b>Expected results 2006 -2010</b></i>                     |
|--|--|---|
| To ensure the availability of early diagnosis and quality/effective TB treatment services through the DOTS strategy in Afghanistan | Detect 70% of all expected tuberculosis cases and cure 85% of them | Detect 85% of all expected tuberculosis and cure 90% of them. |

### **Service delivery targets of Tuberculosis Control Program**

| <i>Service delivery target/indicators</i>                              | <i>Baseline data in 2002-2003</i>   | <i>Service delivery Target for 2010</i>  | <i>Service delivery Target for 2015</i>   |
|--|---|--|---|
| <b>Target-1</b><br>Make DOTS available in all districts of Afghanistan | <ul style="list-style-type: none"> <li>• 35% of all districts</li> <li>• 83 facilities provide DOTS services</li> </ul> | <ul style="list-style-type: none"> <li>• 100% coverage among all districts.</li> <li>• 600 facilities provide DOTS services</li> </ul>   | <ul style="list-style-type: none"> <li>• Keep 100% coverage among all districts</li> <li>• 650 facilities provide DOTS services</li> </ul>  |
| <b>Target-2</b><br>Ensure quality DOTS provision                       | <ul style="list-style-type: none"> <li>• Not known</li> <li>• Not known</li> </ul>                                      | <ul style="list-style-type: none"> <li>• 95% of DOTS units with an uninterrupted supply of TB drugs</li> <li>• 95% of facilities where at least one staff has been trained (or re-trained) on DOTS in the last year</li> </ul> | <ul style="list-style-type: none"> <li>• 100% of DOTS units with an uninterrupted supply of TB drug</li> <li>• 100% of facilities where at least one staff has been trained (or re-trained) on DOTS in the last year</li> </ul> |

### **Budget for 2004-2015**

| TB                         | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010 (1386-1389) | 2011-2015 (1390-1394) |
|----------------------------|------------|------------|------------|-----------------------|-----------------------|
| Total Program costs (M \$) | 1.13       | 1.37       | 1.42       | 7.28                  | 9.03                  |

| TB                        | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010 (1386-1389) | 2011-2015 (1390-1394) |
|---------------------------|------------|------------|------------|-----------------------|-----------------------|
| Capital Investment (M \$) | 0.25       | 0.25       | 0.20       | 1.29                  | 1.18                  |

### (e) Emergency preparedness and response

The Emergency Preparedness and Response Special Program, like the other Special Programs, is built upon the expected service delivery network and organizational arrangements that need to be available for it to function as designed.

| <i>Sub-project objective</i>   | <i>Expected results 2004-2006</i>   | <i>Expected results 2006 -2010</i>   |
|--|---|--|
| <ul style="list-style-type: none"> <li>-Establish data information system on disaster management in health sector</li> <li>-Develop and implement National strategic plan for Disaster Management in Health sector</li> <li>-Establish a network system in Disaster management in Health at all levels</li> <li>-Establish emergency medical response services/team in case of any disasters (EMS- emergency medical services with human and material resources))</li> <li>-Strengthening of laboratory services for diagnosis of epidemic prone infectious diseases</li> <li>-Establish integrated diseases surveillance system</li> <li>- Provision of essential drugs and supplies for emergencies</li> <li>-Rising of awareness and advocacy in emergency preparedness, mitigation and response: Decrease the vulnerability of population to any hazards and disasters through health education</li> </ul> | <ul style="list-style-type: none"> <li>Conduct a survey and collect baseline data on prevention, mitigation, preparedness and response to main hazards and disasters at national level</li> <li>-Finalized National strategic plan for Disaster Management in Health sector</li> <li>-Established provincial Emergency Preparedness and response (EPR) units within the PHC framework at provincial level</li> <li>-Establish emergency medical response services/team in case of any disasters at National level</li> <li>-Establishment of lab services for diagnosis of epidemic prone infectious diseases within provincial public health laboratories in the main provinces</li> <li>-Develop a training manual on integrated diseases surveillance system and its methodology and conduct nationwide training</li> <li>-Provision of essential drugs and supplies for emergencies. To support MOH to establish medical contingency stock at National level in coordination with other stakeholders</li> <li>-Develop or adapt training materials and conduct training program for health professionals and policy makers</li> </ul> | <ul style="list-style-type: none"> <li>-- Implement the strategic plan in health sector in coordination with the National Department of Disaster Management (DDM)</li> <li>-Established provincial Emergency Preparedness and response (EPR) units within the PHC framework at district and community levels</li> <li>-Establish emergency medical response services/team in case of any disasters at provincial level</li> <li>-Establishment of lab services for diagnosis of epidemic prone infectious diseases within provincial public health laboratories in all provinces</li> <li>-Implement the standard guidelines and protocols on integrated diseases surveillance and establish reporting, recording and dissemination system</li> <li>-Provision of essential drugs and supplies for emergencies. To support the MoH to establish medical contingency stock at provincial level in coordination with other stakeholders</li> <li>-Develop or adapt training materials and conduct training program for the public and medical academic institutions</li> </ul> |

**Targets of Health Emergency Preparedness, Mitigation and Response in Afghanistan**

| <b>Service delivery target/indicators</b>  | <b>Baseline data in 2002-2003</b>  | <b>Service delivery Target for 2010</b>   | <b>Service delivery Target for 2015</b>  |
|--|--|---|--|
| <b>Base line/ target-1</b><br>Strengthening of emergency preparedness, mitigation and response activities: Number of trained people, developed/adapted guidelines and standards  | 6 WHO staff member and 1 MoH received 2 weeks training in Iran   | All provincial MoH focal points and emergency team (5-10 medical professionals) from each major hospital will be trained on EMS and public health in complex emergencies  | Training program to be continued for all medical professionals and emergency volunteer team from the community   |
| <b>Base line/ target-2</b><br>-Information dissemination and public awareness enhancement on Disaster Management (natural and man-caused disasters and epidemic prone diseases)<br>-Strengthen and establish integrated diseases early warning surveillance system in prevention, mitigation, preparedness and response to any disasters. Indicators: human and material resources | -Training program in health/hygiene and environmental health for women to enhance their role in EPR and decrease their vulnerability to any hazards and disasters<br><br>100 ToT trained from MOWA and 900 women trained from the community to provide a community based health education<br><br>-Such system is not yet established. There is a system for different infectious diseases, but it not integrated and not implemented in all areas. | -Such training program should be expanded and sustained. The training module will include disaster management issues<br><br>-Train health professionals and establish information/data and communication system at national and regional levels | -Such program should be implemented in school curriculum<br>-Same at all provincial and district, village levels |

**Budget for 2004-2015**

|  | <b>2004(1383)</b> | <b>2005(1384)</b> | <b>2006(1385)</b> | <b>2007-2010<br/>(1386-1389)</b> | <b>2011-2015<br/>(1390-</b> |
|--|-------------------|-------------------|-------------------|----------------------------------|-----------------------------|
|  |                   |                   |                   |                                  |                             |

|                                  |             |             |             |             |              |
|----------------------------------|-------------|-------------|-------------|-------------|--------------|
|                                  |             |             |             |             | <b>1394)</b> |
| <b>Total Program cost (M \$)</b> | <b>0.98</b> | <b>0.57</b> | <b>0.58</b> | <b>2.52</b> | <b>3.35</b>  |

|                            | <b>2004(1383)</b> | <b>2005(1384)</b> | <b>2006(1385)</b> | <b>2007-2010 (1386-1389)</b> | <b>2011-2015 (1390-1394)</b> |
|----------------------------|-------------------|-------------------|-------------------|------------------------------|------------------------------|
| <b>Capital cost (M \$)</b> | <b>0.42</b>       | <b>0.01</b>       | <b>0.01</b>       | <b>0.18</b>                  | <b>0.22</b>                  |

## (f) HIV/AIDS

No data on the prevalence of HIV/AIDS or other sexually transmitted infections (STI) are available due to absence of surveillance in Afghanistan. The estimated number of adults (15-49 years old) living with HIV is below 0.01% at the end of 1999.<sup>42</sup> The Central Blood Bank in Kabul reports that there are 15 HIV sero-positive cases to date.<sup>43</sup> While this is a relatively low number the statistics are unreliable and do not present a realistic figure.<sup>44</sup>

Out of the 15 known HIV positive cases 7 HIV sero-positive cases were reported during the current year [2003]. Six of these cases were among local residents who had not travelled out of the country. The earlier cases were detected among persons who had lived outside the country. The route of infection reported in these cases was heterosexual transmission. The infection pattern of STIs in Afghanistan is also unclear due to lack of relevant research.

The table below provides data on HIV/AIDS testing from the International Committee of the Red Cross (ICRC) selected hospitals in the country.

HIV testing data from hospitals supported by the ICRC:

| Year           | Total Hospitals | Number of tests performed | HIV positive |
|----------------|-----------------|---------------------------|--------------|
| 1996           | 5               | 7,563                     | 0            |
| 1997           | 5               | 8,980                     | 0            |
| 1998           | 6               | 12,168                    | 0            |
| 1999           | 6               | 13,081                    | 1            |
| 2000           | 6               | 13,123                    | 2            |
| 2001           | 11              | 16,896                    | 0            |
| 2002           | 12              | 11,719                    | 0            |
| 2003 (JAN-MAR) | 11              | 2,495                     | 0            |
| <b>Total</b>   |                 | <b>86,025</b>             | <b>3</b>     |

[Source: ICRC]

Afghanistan is considered to be a country of low HIV prevalence but at high-risk for spread of HIV infection. The reasons behind this are several: over two decades of protracted armed conflicts, the extremely low socio-political and economic status of women, huge numbers of people displaced internally and externally, the extremely poor social and public health infrastructure, drug trafficking, use of injecting drugs and lack of blood safety practices. These risk factors lead officials to warn of the urgent need for early interventions to prevent a potentially rapid spread of HIV in Afghanistan.

**(i) Drug abuse:** Afghanistan is one of the world's largest producers of opium. Opium and heroin abuse appear to be more severe in areas where those drugs are produced. Although there is currently no data on the number of Afghans who inject drugs, indicators suggest there are

<sup>42</sup> UNAIDS & WHO epidemic update. July 2002, Geneva.

<sup>43</sup> Verbal information provided by Dr. Nauman Hekmat during mission meeting.

<sup>44</sup> IRIN HIV/AIDS Plus news Service. Health Workers fear HIV/AIDS epidemic in Afghanistan 17 April 2002.

an increasing number of drug users in areas such as Kabul, Gardez, Farah and Herat. Recent reliable reports from Gardez of Paktia provinces suggest that there are over 100 intravenous drug users.

(ii) **Unsafe blood supply:** The poor state of blood transfusion facilities throughout the country is of primary concern in the control of the spread of HIV/AIDS. An estimated half of the country's 44 hospitals that perform surgery do not systematically test the blood for HIV before transfusions. According to information obtained from the Central Blood Bank and WHO, less than 30 percent of transfused blood is screened.

(iii) **Refugees and internally displaced persons:** Refugees and internally displaced persons are particularly vulnerable to HIV for various reasons, including exposure to sexual abuse, violence, and lack of access to information and education.

(iv) **Sexually transmitted infections (STI):** there are no confirmed data on STI prevalence in the country. However, information from clinical records particularly from private clinics in large towns suggests that there possibly is a high prevalence of sexually transmitted infections.

(v) **Condom use** The 2003 MICS (Multi Indicator Cluster Survey) reports a current use of contraceptive by 10 percent of married women in national average and 5.9 percent in rural average. Although condoms are available through Mother and Child Health (MCH) clinics, in pharmacies as well as in shops, condom use is reported to be very low and injections appear to be the most common contraceptive.

(vi) **Gender aspects:** Women's health is extremely poor due to malnutrition, frequent pregnancies without basic care or trained delivery assistance, and lack of access to information or services. The March 2002 Afghanistan ECOSOC report<sup>45</sup> paragraph 21 on violence against women and girls, its consequences and causes discusses instances of rape, sexual assault, forced prostitution and forced marriage. The civil war and militarization of society led to an increase in the number of abductions of young girls and women by fighters. It is difficult to obtain exact numbers as families have been reluctant to come forward and report cases of abductions due to the social stigma attached to a daughter or sister kidnapped or sold for sex. 54 percent of girls under the age of 18 were married.

HIV/AIDS though currently not among the most pressing public health priorities in Afghanistan is being given attention by the Ministry of Health as a potential danger. Based on the situation analysis and a preliminary assessment conducted prior to developing the National Solidarity Programme (NSP), the following priority intervention areas have been identified:

- **Surveillance and research**
- **Prevention of HIV/AIDS (Information Education Communication and Behaviour Change Communication) targeting:**
  1. Vulnerable groups (young people, women, Injection Drug Users, Internally displaced people and refugees, mobile labour force, commercial sex workers).
  2. Workers (at different industries e.g. mine industry).
  3. General population.
- **Prevention and effective management of Sexually Transmitted Infections.**

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<sup>45</sup> Discrimination against women and girls in Afghanistan. Economic and Social Council 4-15 March 2002. Report of the Secretary General.

- **Blood Safety.**
- **Voluntary counselling and testing, care, treatment and support.**

The aforementioned priorities are addressed through eight objectives and specific intervention strategies.

#### **Objectives and Expected Results of STI/HIV/AIDS Control Program**

| <i>Sub-project objective</i>  | <i>Expected results 2004-2006</i>  | <i>Expected results 2006 -2010</i>   |
|---|--|--|
| <ul style="list-style-type: none"> <li>• To reduce risk of HIV infection among vulnerable, specifically youth and high risk groups.</li> <li>• To reduce the risk of infection amongst the general population through an increase in awareness levels.</li> <li>• To reduce prevalence prevents transmission of sexually transmitted infections as part of the efforts to reduce HIV transmission.</li> <li>• To reduce the risk of transmission of HIV and other blood borne infections through blood transfusion.</li> <li>• To improve quality of life for people living with HIV/AIDS through the provision of quality care and support.</li> </ul> | <ul style="list-style-type: none"> <li>• Establish a nation wide HIV/AIDS surveillance system ( at least one sentinel surveillance site in each province)</li> <li>• Understand risk behaviours among high risk groups and youth through appropriate research measures.</li> <li>• Enable members of vulnerable and high risk groups to protect themselves and their peers from HIV infection.</li> <li>• At least in major cities, provided effective, needs based, and user-friendly STI/HIV/AIDS related services for vulnerable and high-risk groups.</li> </ul> | <ul style="list-style-type: none"> <li>• National wide social marketing of condom for STI/HIV/AIDS prevention is taken place.</li> <li>• Still keep low prevalence rate among high risk groups, and very low prevalence rate in general populations.</li> <li>• Decrease at least 50 % of risk behaviours among high risk groups and youth through behaviour change communications.</li> <li>• At least 50% of Persons living with AIDS can receive counselling, quality care and support system through the public or any other formal/informal/private health care systems.</li> </ul> |

#### **Service Delivery Targets of STI/HIV/AIDS Control program**

| <i>Service delivery target/indicators</i>   | <i>Baseline data in 2002-2003</i>   | <i>Service delivery Target for 2010</i>  | <i>Service delivery Target for 2015</i>  |
|---|---|--|--|
| <b>Base line/ target-1</b><br>• To expand the knowledge base in order to facilitate planning, implementation and evaluation of STI/HIV/AIDS programmes. | <b>Base line</b><br>• 11 hospitals have participated in the surveillance. | <b>Target</b><br>• All provincial hospitals can be sentinel site, and report to MoH regularly. | <b>Target</b><br>• All provincial hospitals, all Emergency Obstetric Care centres and STI clinics can be sentinel site, and report to the MoH regularly.<br><br>• 100% of district hospitals and 80 % of |
| <b>Base line/ target-2</b>  | • 11 hospitals can  |  |  |

|   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li>Establish safe blood transfusion services in all national and provincial hospitals.</li> </ul> <p><b>Base line/ target-3</b></p> <ul style="list-style-type: none"> <li>Establish anonymous VCT (voluntary counselling and testing) centres.</li> </ul> <p><b>Base line/ target-4</b></p> <ul style="list-style-type: none"> <li>Establish STI/HIV control, care, and support service systems</li> </ul> | <p>do blood screening test.</p> <ul style="list-style-type: none"> <li>Currently no service is rendered</li> </ul> <ul style="list-style-type: none"> <li>Currently no service is rendered</li> </ul> | <ul style="list-style-type: none"> <li>100% of national and provincial hospitals provide blood screening services and safe blood supply.</li> <li>Establish voluntary counselling and testing (VCT) centres in Kabul and several major cities</li> <li>At least, 80% of provinces have STI/HIV/AIDS control, care, and support service systems in integration manner</li> </ul> | <p>comprehensive centres have blood screening services and safe blood supply.</p> <ul style="list-style-type: none"> <li>Increase number of VCT centres with integration with existing health/public/private structures.</li> <li>100% provinces have STI/HIV/ AIDS control, care, and support service systems.</li> </ul> |
|---|---|---|--|

**Commitment requirements for each project already identified (1383,1384,1385,1386-89)**

| STI/HIV/AIDS               | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010<br>(1386-1389) | 2011-2015<br>(1390-1394) |
|----------------------------|------------|------------|------------|--------------------------|--------------------------|
| Total Program costs (M \$) | 1.76       | 2.11       | 2.36       | 11.06                    | 19.89                    |

| STI/HIV/AIDS              | 2004(1383) | 2005(1384) | 2006(1385) | 2007-2010<br>(1386-1389) | 2011-2015<br>(1390-1394) |
|---------------------------|------------|------------|------------|--------------------------|--------------------------|
| Capital Investment (M \$) | 0.03       | 0.03       | 0.01       | 0.05                     | 0.15                     |

### ***8.3 Improving Quality of Hospital Services***

The Hospital sector in Afghanistan is in a poor condition. It has not attracted any major funding for its recurrent costs, bar funds channelled through the government system, which was composed largely of a salary component. Haphazard donor efforts have rehabilitated and equipped some of these Hospitals, most of them in Kabul. However, such efforts resemble rather well meant symbolic gestures from Embassy donor representatives than a serious and well-planned effort to lift this sector out of its miserable existence.

Distribution of beds is severely skewed. 3,190 in Kabul (Dr Shukuhmand), verbal communication) and 4,292 outside Kabul;<sup>46</sup> there is also a 400-bed Military Hospital; a 100-bed Police Hospital and a 150-bed Security forces Hospital in Kabul (these are outside the MoH structure).

A national Hospital Taskforce is working on drafting a National Hospital Policy, and although the Policy is not yet finalized, progress has been made. A large nationwide Hospital Survey has been conducted, taking as its starting point data that had been acquired during the September 2002 National Health Resources Assessment. Information on the results is expected to be available in January 2004. Creating a package of Essential Hospital Services is one of the objectives of the Hospital Taskforce. Such a package would take time though to create, and to cost.

As cost figures are urgently needed for the costing of the Hospital Sector for the coming 12 years, the MoH has made progress with support from the WHO, to design a generic Hospital classification. Existing Hospitals were taken as a starting point, in order to estimate the costs related to the Secondary and Tertiary Hospitals in Afghanistan.

There are four generic levels of Hospitals in Afghanistan:

1. District Hospitals (the first level referral Hospital from the Basic Package of Health Services); on average with a 50-bed capacity;
2. Provincial Hospitals, on average with a 100-bed capacity;
3. Regional Hospitals, on average with a 400-bed capacity;
4. Tertiary Hospitals; on average with a 400-bed capacity.

The existing bed to 1,000 population ratio is severely skewed towards Kabul. The National Health Resources Assessment carried out in September 2002, found a bed to 1,000 population ratio of 1.28 in Kabul versus 0.22 in the provinces. The survey also documented a patchwork of degrees of quality, related to whether or not the Hospital was supported by outside agencies. The relatively high bed to population ratio in Kabul is still reflected in the staffing patterns of the MoH; about half of the 26,000 odd staff on its payroll is based in Kabul.

The eight MoH Kabul Hospitals are so-called ‘Special Care Hospitals’; each has some kind of specialty, for instance, paediatric care, chest medicine and the like. None of these Hospitals are currently functioning well due to inefficiently low salary levels and lack of resources at all levels. Patients who visit these Hospitals are frequently subject to informal payments and have to purchase their own drugs and supplies in the private sector due to stock-outs in the Hospitals.

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<sup>46</sup> National Health Resources Assessment.

A well functioning primary health care system needs a credible and well-functioning secondary and tertiary Hospital network. However, the resources that Hospitals tend to consume in poor countries prohibit the widespread use of Hospitals and inpatient care to tackle the burden of disease that predominantly ought to be treated at lower levels in the health care pyramid.

Keeping resource constraints in mind, a strategy was designed to (i) safe guard funding for the Basic Package of Health Services, (ii) to work towards greater equity in the distribution of scarce health resources, (iii) to improve the quality of Hospital services and (iv) to rationalize the secondary and tertiary level Hospital services:

- (1) A generic classification with costings for three different levels of Hospitals (Provincial; Regional and Tertiary) has been designed, and the various types of Hospital beds have been ‘budgeted’ for the country for the next twelve years;
- (2) The total number of Hospital beds in Kabul will be frozen at 3,000 for the next 12 years;
- (3) The total number of Hospital beds in Provincial Hospitals outside Kabul will be increased from 1,700 to 2,700 over a period of ten years and, thereafter, kept constant;
- (4) The growth of the total number of District Hospital beds, the beds in the so-called ‘first level referral Hospital’, will be tied to the population growth (1.92% per annum) and funding will be secured for these beds through the BPHS. The funding for the BPHS is set to grow, as the target by 2006/1385 for the BPHS is 80%, the target for the BPHS for 2010/1389 is 90% and the target for 2012/1392 is 95% of the BPHS implemented.
- (5) The costing for the secondary and tertiary Hospitals in Afghanistan is realistic; it uses certain criteria like for instance 1 MD per 5 Beds and a ratio MD to Paramedical staff of 1 to 3, combined with adequate remuneration for the staff and sufficient capital investments and budgets for recurrent costs. Appropriate technology is introduced, avoiding high cost modern devices. The envisaged changes, if implemented, will lead to a much greater effectiveness and efficiency, at an affordable cost.

This strategy, apart from containing costs, will lead to the bed to 1,000 population ratio in Kabul to drop from 1.07 to 0.87 over a twelve year period, whilst the ratio outside Kabul will increase from 0.32 to 0.37 over the same period. A bed to population ratio of 1.07 (or, let alone, 0.32) is very low compared to the situation in other very poor countries.<sup>47</sup>

The proposed increase in the number of Provincial Hospital beds from 1,700 to 2,700 will need construction of ten 100-bed Provincial Hospitals. Ten provinces do not have a provincial Hospital; the remaining provinces do have such a facility (17 province centres and 5 regional centres). The construction of these provincial Hospitals will take place during 2006 to 2010; two provincial Hospitals are planned in each year.

Capital, staff and other recurrent expenditures related to improving the Quality of Hospital Services are provided in the table below. (Capital Costs include the rehabilitation and equipping of all facilities and the construction and equipping of ten provincial Hospitals. After rehabilitation or construction and initial equipping, the capital cost part of the facilities includes maintenance and replacement of equipment).

| <b>Costs</b> | <b>2004/1383<br/>M US\$</b> | <b>2005/1384<br/>M</b> | <b>2006/1385<br/>M</b> | <b>2007/1386<br/>-</b> | <b>2011/1390<br/>-</b> |
|--------------|-----------------------------|------------------------|------------------------|------------------------|------------------------|
|--------------|-----------------------------|------------------------|------------------------|------------------------|------------------------|

<sup>47</sup> Most very poor countries have a Hospital bed to 1,000 population ratio of less than 2 (versus 8 for OECD countries), out of 47 very poor countries the mean was 1.45 beds per 1,000.

|           |       | (2003) US\$ | (2003) US\$ | 2010/1389<br>M (2003)<br>US\$ | 2015/1394<br>M<br>(2003)<br>US\$ |
|-----------|-------|-------------|-------------|-------------------------------|----------------------------------|
| Capital   | 29.78 | 3.47        | 6.94        | 29.09                         | 20.73                            |
| Staff     | 6.21  | 6.21        | 6.46        | 28.34                         | 37.37                            |
| Recurrent | 7.71  | 7.71        | 8.03        | 35.29                         | 46.49                            |
| Total     | 43.70 | 17.40       | 21.43       | 92.75                         | 104.59                           |

## **8.4 Human Resource Development**

More than two decades of war and chaos has left Afghanistan's health care system completely devastated both at the infrastructural and at the Human Resources level.

The most critical element in health care delivery in any country is both the quality and quantity of its Human Resource pool. Upon completion of several surveys, and much diligent data analysis, a human resource strategy has been drafted by the ministry of health of the transitional government of Afghanistan. The human resource policy centres around delivery of health care equitably through out the country, thus increasing the numbers and quality of these health care workers, especially in rural areas.

To this end the MoH budget, as it pertains to Human Resource Development, is focused on three main areas:

- 1) Institute of Health Sciences (IHS)
- 2) Continued education
  - i. Refresher / in-service education—
  - ii. Post graduate programs
  - iii. Development of national health professionals counsel
  - iv. Management training
  - v. Pre-service Training
- 3) Staff of the ministry of Health.

IHS centres are created for training nurses, midwives, and other paramedical staff, and the plan is to, over the next twelve years, have twelve fully functional IHS centres in order to have 10,000 fully trained nurses, midwives and other paramedical staff. The nine centres that are partially functional at this point will have to be rehabilitated at an average cost of \$500,000, and the remaining three to be built from the ground up by the year 2013, at an estimated cost of \$2 million dollars each.

|                                    | Intermediate Health Sciences Institutions |                     |                     |                     |                      |
|------------------------------------|---|---------------------|---------------------|---------------------|----------------------|
|                                    | 2004                                      | 2005                | 2006                | 2007-2010           | 2011-2015            |
| <i>Staff cost</i>                  |   |                     |                     |                     |                      |
| Kabul IHS                          | \$307,200                                 | \$307,200           | \$307,200           | \$1,228,800         | \$1,536,000          |
| 11 Provincial IHSS                 | \$1,228,800                               | \$1,228,800         | \$1,228,800         | \$4,915,200         | \$7,065,600          |
| <i>Recurrent cost</i>              |   |                     |                     |                     |                      |
| Kabul IHS                          | \$1,984,800                               | \$1,984,800         | \$1,984,800         | \$7,939,200         | \$9,924,000          |
| 11 Provincial IHSS                 | \$7,560,000                               | \$7,560,000         | \$7,560,000         | \$30,240,000        | \$43,470,000         |
| <i>Capital Cost</i>                |   |                     |                     |                     |                      |
| Rehabilitation eight IHSSs (2004)  | \$4,500,000                               |                     |                     |                     |                      |
| Construction of three IHSSs (2013) |   |                     |                     |                     | \$6,000,000          |
| Kabul IHS                          | \$150,000                                 | \$37,655            | \$37,655            | \$150,619           | \$188,273            |
| 11 Provincial IHSSs                | \$600,000                                 | \$223,870           | \$223,870           | \$895,480           | \$1,495,801          |
| <b>Total</b>                       | <b>\$16,330,800</b>                       | <b>\$11,342,325</b> | <b>\$11,342,325</b> | <b>\$45,369,298</b> | <b>\$69,679,674</b>  |
| <b>Grand total 12 years</b>        |   |                     |                     |                     | <b>\$154,064,421</b> |

## 8.5 Administrative Reform and Capacity Building

The current number of Ministry of Health (MoH) staff on the payroll is said to be 26,000, although this number is not firm. According to one estimate, 59% of these are in Kabul and the rest outside of Kabul, although many of the rest are in the major urban centres. The distribution of staff reflects the historic arrangements and outlook within the MoH – Kabul and urban biased.

Afghanistan's health system is in a rapid state of flux. The new MoH strategy to implement the Basic Package of Health Services (BPHS) involves contracting these health services to Non Governmental Organizations (NGOs). It is likely that the MoH will be involved to a certain extent in the delivery of this basic package, however, to what extent exactly is not clear yet. The exact implications on the need for MoH Human Resources will therefore be difficult to predict twelve years from now. An additional problem is that virtually all MoH staff is based either in Kabul or in large urban centres, whilst the delivery of the basic package occurs in rural (remote) areas with scarce opportunities for schooling of children or additional income generating options (private practice).

### Need for redistribution of MoH staff

Although the National Salary Policy for NGOs allows paying competitive salaries to Health Staff working in rural remote areas, it is unlikely that all MoH provincial staff will be absorbed by NGOs.

This Salary Policy has a rural hardship allowance scheme. (The scheme, which uses 11 variables, scores the relative rural hardship of rural areas; it leads to a grading system that runs from 1 to 4). The first grade, the least 'hard', is typically in either the province or the district centre. This first grading allows the NGO to pay, as a maximum-they are allowed to pay less- the Base Salary Scale. The fourth grade, allows- they are allowed to pay less- the NGO to pay a 200% allowance for female 'essential medical staff- doctors and nurses and midwives-, and a 100% allowance for male 'essential medical staff', on top of their base salary scales.

It has to be seen what kind of impact these monetary incentives will have on the motivation of MoH staff to move from Kabul and the Provincial centres to rural remote areas. Most MoH Health Staff have some kind of economic ties to the urban centres through their private practices, the purpose of them being MoH staff, and showing up in the Provincial Hospital or some MoH

urban clinic, for a few hours each day, is to avoid losing their rights to exercise private practice. The MoH allows private practice, provided that MoH staff shows up during official working hours in MoH institutions. It goes without saying that this does not work; typically an average MoH employee would walk in about 10.00-ish, sign the attendance sheet, and leave by 13.00 hrs. Or, worse, would walk in once a week and sign for the whole week, or having others sign for him or her.

Below are four tables, representing staffing patterns correlating with service delivery targets by year 1,3,7 and 10.

Staff at the Community Based Health Care Programme Level; Community Health Workers (CHWs) and Traditional Birth Attendants (TBAs)<sup>48</sup>, located in so-called ‘Health Posts’ is excluded –although they form a considerable number of Health Workers; 100% BPHS at the minimum ratio correlate with one CHW and one TBA per 1,500 Afghan Population-. The reason that they are excluded is that it will not form part of the salary recurrent costs; they are supposed to either work free of charge or be remunerated by some sort of community financing mechanism. In addition to the staffing levels, it is important to realize that NGO Programme staff is excluded from these staffing patterns. Quite a few Health Supervisors, Trainers and Health Programme Managers will be employed by NGOs to carry out the service delivery tasks. The figures provided only reflect Health staff directly in contact with beneficiaries; the central and provincial MoH staff are excluded, equally are MoH staff excluded who are involved in various training activities, for instance in the IHS (Intermediate Health Sciences) Institute. Health Staff that is involved in the Special Programs carried out by UN agencies are also excluded. It is envisioned to integrate all these Provincial MoH staff in the current set-up, of for instance, the Provincial Health Offices. The new Priority Reform and Restructuring (PRR) of the Provincial Health Offices takes care of for instance seven Provincial Health Officers in each Province, most, if not all, involved in Special Programmes like for instance Nutrition, EPI, Reproductive Health and Save Motherhood Initiative, Communicable Diseases etc. However, as the PRR process is supposed to be about recruitment based on merit only, it is not certain if all recruited persons will be existing MoH staff.

The Total Staff in the tables is the sum total of Total Medical Staff and Total Support Staff and Administrative Staff. Other Medical Staff is the result of Medical Specialists plus MD (Male) plus MD (Female) plus Nurses plus Midwives minus Total Medical Staff (these are staff like Laboratory Technicians, X-ray Technicians, Pharmacists and the like). For interpreting the tables: it is fair to assume that the BPHS will predominantly be provided by NGOs, and that service delivery in the Secondary and Tertiary Hospitals will be taken on by the MoH.

#### Staffing for 2004 (1384)

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<sup>48</sup> The inclusion of the TBAs in the BPHS is the subject of an ongoing debate.

| Staffing for 2004 (1383) | Target 80% BPHS for 1385 |                     |                |                                  |                             |
|--------------------------|--------------------------|---------------------|----------------|----------------------------------|-----------------------------|
|                          | Totals Sec and Tert H    | Staff outside Kabul | Staff in Kabul | Staff BPHS for entire population | Total Health Staff for 1383 |
| Staff Categories         | 2004 (1383)              | 2004 (1383)         | 2004 (1383)    | 2004 (1383)                      | 2004 (1383)                 |
| Total Staff              | 7,256                    | 4,290               | 2,966          | 12,309                           | 19,565                      |
| Total Medical Staff      | 5,838                    | 3,440               | 2,398          | 7,301                            | 13,132                      |
| Total Support Staff      | 1,211                    | 729                 | 482            | 4,827                            | 6,036                       |
| Medical Specialists      | 520                      | 312                 | 208            | 121                              | 641                         |
| MD (M)                   | 470                      | 274                 | 196            | 1,026                            | 1,496                       |
| MD (F)                   | 470                      | 274                 | 196            | 422                              | 892                         |
| Nurses                   | 2,292                    | 1,365               | 927            | 1,750                            | 4,042                       |
| Midwives                 | 771                      | 422                 | 349            | 1,146                            | 1,917                       |
| Other Medical Staff      | 1,317                    | 793                 | 524            | 2,836                            | 4,153                       |
| Administrative Staff     | 205                      | 121                 | 84             | 1,388                            | 1,593                       |
| Total MDs                | 1,460                    | 860                 | 600            | 1,569                            | 3,029                       |
| Total Paramedical        | 4,378                    | 2,580               | 1,798          | 5,732                            | 10,110                      |

### Staffing for 2006 (1386)

| Staffing for 2006 (1386) | Target 80% BPHS for 1386 |                     |                |                                  |                            |
|--------------------------|--------------------------|---------------------|----------------|----------------------------------|----------------------------|
|                          | Totals Sec and Tert H    | Staff outside Kabul | Staff in Kabul | Staff BPHS for entire population | Total Health Staff by 1386 |
| Staff Categories         | 2006 (1386)              | 2006 (1386)         | 2006 (1386)    | 2006 (1386)                      | 2006 (1386)                |
| Total Staff              | 7,256                    | 4,290               | 2,966          | 12,786                           | 20,042                     |
| Total Medical Staff      | 5,838                    | 3,440               | 2,398          | 7,584                            | 13,422                     |
| Total Support Staff      | 1,211                    | 729                 | 482            | 5,014                            | 6,225                      |
| Medical Specialists      | 520                      | 312                 | 208            | 125                              | 643                        |
| MD (M)                   | 470                      | 274                 | 196            | 1,065                            | 1,535                      |
| MD (F)                   | 470                      | 274                 | 196            | 439                              | 909                        |
| Nurses                   | 2,292                    | 1,365               | 927            | 1,818                            | 4,110                      |
| Midwives                 | 771                      | 422                 | 349            | 1,191                            | 1,962                      |
| Other Medical Staff      | 1,317                    | 793                 | 524            | 2,946                            | 4,263                      |
| Administrative Staff     | 205                      | 121                 | 84             | 1,442                            | 1,647                      |
| Total MDs                | 1,460                    | 860                 | 600            | 1,630                            | 3,090                      |
| Total Paramedical        | 4,378                    | 2,580               | 1,798          | 5,954                            | 10,332                     |

### Staffing for 2010 (1389)

| Staffing for 2010 (1389) | Target 90% BPHS for 1389 |                     |                |                                  |                                  |
|--------------------------|--------------------------|---------------------|----------------|----------------------------------|----------------------------------|
|                          | Totals Sec and Tert H    | Staff outside Kabul | Staff in Kabul | Staff BPHS for entire population | Total Health Staff for 1385-1389 |
| Staff Categories         | 2010 (1389)              | 2010 (1389)         | 2010 (1389)    | 2010 (1389)                      | 2010 (1389)                      |
| Total Staff              | 7,256                    | 4,290               | 2,966          | 15,521                           | 22,771                           |
| Total Medical Staff      | 5,838                    | 3,440               | 2,398          | 9,206                            | 15,044                           |
| Total Support Staff      | 1,211                    | 729                 | 482            | 6,087                            | 7,298                            |
| Medical Specialists      | 520                      | 312                 | 208            | 152                              | 672                              |
| MD (M)                   | 470                      | 274                 | 196            | 1,293                            | 1,763                            |
| MD (F)                   | 470                      | 274                 | 196            | 533                              | 1,003                            |
| Nurses                   | 2,292                    | 1,365               | 927            | 2,206                            | 4,496                            |
| Midwives                 | 771                      | 422                 | 349            | 1,446                            | 2,217                            |
| Other Medical Staff      | 1,317                    | 793                 | 524            | 3,576                            | 4,893                            |
| Administrative Staff     | 205                      | 121                 | 84             | 1,750                            | 1,955                            |
| Total MDs                | 1,460                    | 860                 | 600            | 1,978                            | 3,438                            |
| Total Paramedical        | 4,378                    | 2,580               | 1,798          | 7,228                            | 11,606                           |

Total staffing for 2013 (1392)

| Staffing for 2013 (1392) | Totals Sec and Tert H | Staff outside Kabul | Staff in Kabul | Target 95% BPHS for 1392 |             | Total Health Staff for 1389-1392 |
|--------------------------|-----------------------|---------------------|----------------|--------------------------|-------------|----------------------------------|
|                          |                       |                     |                | 2013 (1392)              | 2013 (1392) |                                  |
| Total Staff              | 7,256                 | 4,200               | 2,966          | 17,345                   | 24,601      |                                  |
| Total Medical Staff      | 5,838                 | 3,440               | 2,396          | 10,288                   | 16,126      |                                  |
| Total Support Staff      | 1,211                 | 729                 | 482            | 6,802                    | 8,013       |                                  |
| Medical Specialists      | 520                   | 312                 | 208            | 170                      | 690         |                                  |
| MD (M)                   | 470                   | 274                 | 196            | 1,445                    | 1,915       |                                  |
| MD (F)                   | 470                   | 274                 | 196            | 595                      | 1,065       |                                  |
| Nurses                   | 2,292                 | 1,365               | 927            | 2,466                    | 4,756       |                                  |
| Midwives                 | 771                   | 422                 | 349            | 1,615                    | 2,396       |                                  |
| Other Medical Staff      | 1,317                 | 793                 | 524            | 3,996                    | 5,313       |                                  |
| Administrative Staff     | 205                   | 121                 | 84             | 1,956                    | 2,161       |                                  |
| Total MDs                | 1,460                 | 860                 | 600            | 2,211                    | 3,671       |                                  |
| Total Paramedical        | 4,378                 | 2,580               | 1,798          | 8,077                    | 12,455      |                                  |

Only 2,966 MoH staff employed in the secondary and tertiary Hospital services will be Kabul based by 2015. To this number of Kabul based staff we have to add staff employed in MoH Kabul Primary Health Care activities such as Mother and Child Health Clinics, employees working in e.g. the central reference laboratory and employees working in the reformed central MoH. It is to be expected that Primary Health Care facilities in Kabul will be expanded over a 12 year period; namely; access to the BPHS ought to be for urban Afghans as well (currently the focus is on the rural Afghan population).

#### ***Priority Reform and Restructuring (PRR) of the Ministry of Health***

A PRR for the Provincial Health Department, the 'Provincial Health Liaison Office and 32 Provincial Health Offices', has been approved in the Dec 9<sup>th</sup> Cabinet meeting. It involves 297 professional staff on PRR scales, some of which on an extraordinary 'Super Scale', and 324 support staff (cleaners, messengers, and drivers) on the 'U' (Unchanged) Level. 70 staff is on this Super Scale, and 227 staff on the PRR scale, on various levels.

The average monthly remuneration for these professional 297 staff will be Afs 13,340. Three large Directorates in the Central Ministry of Health will need to be 'PRR-rd'; the first of which will be the Policy and Planning Directorate.<sup>49</sup> The Health Care & Promotion and the Administration and Management Directorates (the latter through some national mechanism), will follow suit.

The PRR of the Provincial Health Department will lead to 13 staff in the Kabul Liaison Office and 608 staff outside Kabul. One could to assume that about 1,000 staff will be involved in various MoH clinics in Kabul, and in various Kabul departments, like for instance the national reference laboratory. After a successful PRR of the MoH public administration, 200 staff could remain. A fair assumption would be that another 500 MoH staff would be employed throughout the country at the provincial level.

It is reasonable to assume that, by 2015, the total MoH staff will be less than 10,000 based on the aforementioned assumptions. If MoH staff is not willing to assume duties in rural remote areas, then, in that case, mechanisms ought to have been put into place for transferring them to other sectors or getting them out of the civil service.

#### ***New roles and tasks for the MoH***

<sup>49</sup> A PRR for the Policy and Planning General Directorate has been approved in the second week of January.

Since the formation of the TISA, the new roles and tasks for the MoH in the developing Afghan health system have been:

- Policy setting;
- Regulating, Coordinating, Monitoring and Evaluating;
- Human Resource Development (including IHS, continuous training programs, capacity building of senior staff through on-site technical assistance and advanced courses);
- Securing funds for the Afghan public health system;
- Service delivery through the secondary and tertiary hospitals; and,
- (Possibly) involvement in service delivery of the BPHS.

#### Budget for Public Administration after PRR of the Provincial Health Department

| <b>MoH staff in PRR Provincial Health Department</b> | <b>2004/1383</b>   | <b>2005/1384</b>   | <b>2006/1385</b>   |
|--|--------------------|--------------------|--------------------|
| <b>Staff cost</b>                                    | \$297,587          | \$898,042          | \$933,664          |
| <b>Capital cost</b>                                  | \$960,267          | \$2,739,417        | \$324,442          |
| <b>Other Recurrent cost</b>                          | \$229,500          | \$528,350          | \$742,011          |
| <b>Total Cost</b>                                    | <b>\$1,487,354</b> | <b>\$4,165,809</b> | <b>\$2,000,117</b> |

#### Total Budget of Public Administration after Priority Reform and Restructuring<sup>50</sup>

| <b>MoH staff in Public Administration</b> | <b>2004/1383</b>   | <b>2005/1384</b>   | <b>2006/1385</b>   | <b>2007-2010/1389</b> | <b>2011-2015/1394</b> |
|---|--------------------|--------------------|--------------------|-----------------------|-----------------------|
| <b>Staff cost</b>                         | \$297,587          | \$2,170,282        | \$2,205,904        | \$8,823,616           | \$19,853,136          |
| <b>Capital cost</b>                       | \$960,267          | \$3,404,479        | \$989,504          | \$3,958,016           | \$8,905,536           |
| <b>Other Recurrent cost</b>               | \$229,500          | \$817,286          | \$1,030,947        | \$4,123,788           | \$9,278,522           |
| <b>Total cost</b>                         | <b>\$1,487,354</b> | <b>\$6,392,047</b> | <b>\$4,226,355</b> | <b>\$16,905,420</b>   | <b>\$25,358,129</b>   |

#### *Remaining MoH staff*

Currently, about 18,000 MoH staff is on the payroll. The 2003/1382 MoH budget looks as follows:<sup>51</sup>

| <b>The MoH current budget for 1382</b> | <b>AFS</b>         | <b>\$</b>           |
|--|--------------------|---------------------|
| <b>Staff cost</b>                      | 517,368,750        | \$10,778,516        |
| <b>Recurrent cost</b>                  | 22,260,000         | \$463,750           |
| <b>Capital cost</b>                    | 22,260,000         | \$463,750           |
| <b>Total</b>                           | <b>561,888,750</b> | <b>\$11,706,016</b> |

The following plan will be applied to the MoH staff: in the first year, 2004, 100% of staff cost will be budgeted; in 2005, 75% of the staff cost will be budgeted, during 2006-2010, 50% of the staff cost will be budgeted; during 2011-2015, 25% of the staff cost will be budgeted. This estimation will hopefully coincide with (i) absorption of MoH staff by NGOs implementing the

<sup>50</sup> Excluding recurrent costs related to the remaining staff on the MoH payroll.

<sup>51</sup> Information from the MoH Administration and Management General Directorate.

BPHS; (ii) transfer of MoH staff to other Sectors; (iii) dismissal of MoH staff who refuse to take on assignments and (iv) natural turn-over.

The budget for the remaining MoH staff looks as follows:

| <i>MoH recurrent staff cost</i> | <i>2004</i>  | <i>2005</i> | <i>2006</i> | <i>2007-2010</i> | <i>2011-2015</i> |
|---------------------------------|--------------|-------------|-------------|------------------|------------------|
| Staff cost                      | \$10,778,516 | \$8,083,887 | \$4,041,943 | \$16,167,773     | \$13,473,145     |

### *Capacity Building*

For more details see annex 5 ‘Technical Assistance Needs’.

The capacity building is constructed around: (i) the need for International and Local consultants; (ii) the need for tailor made courses for provincial and central public administration staff and (iii) the need for a well-designed capacity building plan for senior MoH staff, which includes overseas courses.

The Capacity Building plan is constructed around the assumption that most of the TA will be needed years 1-3, and that thereafter, the need for TA can be slowly decreased. However, workshops, seminars and overseas courses are kept at a high level throughout.

| <b>Capacity Building Program</b>             | <b>2004</b>         | <b>2005</b>         | <b>2006</b>         | <b>2007-2010</b>    | <b>2011-2015</b>    |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| Staff cost international & local consultants | \$14,832,000        | \$14,832,000        | \$14,832,000        | \$44,496,000        | \$27,810,000        |
| NGO technical assistance cost                | \$2,000,000         | \$2,000,000         | \$2,000,000         | \$6,000,000         | \$3,750,000         |
| In country training and workshops            | \$704,000           | \$704,000           | \$704,000           | \$2,816,000         | \$3,520,000         |
| Overseas conferences and meetings            | \$753,600           | \$753,600           | \$753,600           | \$3,014,400         | \$3,768,000         |
| Vehicles                                     | \$88,000            | \$19,215            | \$19,215            | \$93,834            | \$55,244            |
| Equipment                                    | \$336,000           | \$175,594           | \$175,594           | \$739,515           | \$627,763           |
| <b>Total</b>                                 | <b>\$18,713,600</b> | <b>\$18,484,410</b> | <b>\$18,484,410</b> | <b>\$57,159,749</b> | <b>\$39,531,007</b> |

## Annexes

### *Annex 1 Detailed Background Information on Sector<sup>52</sup>*

| <i>Basic Indicators (can be different from official CSO statistics)</i> | <i>1992</i> | <i>2002</i>       |
|---|-------------|-------------------|
| Total population (000) <sup>53</sup>                                    |             | 22,930            |
| Annual growth rate (1992-2001)  |             | 3.8 <sup>54</sup> |
| Dependency ratio (per 100)  | 88          | 86                |
| Percentage of population aged 60+ years                                 | 4.7         | 4.7               |
| Total fertility rate  | 7           | 6.8               |
| Life expectancy at birth (both sexes)                                   | 42.6        | 42.6              |

| <i>Selected National Accounts Indicators</i>                                 | <i>1997</i> | <i>1998</i> | <i>1999</i> | <i>2000</i> | <i>2001</i> |
|--|-------------|-------------|-------------|-------------|-------------|
| Total expenditure on health as % of GDP                                      | 1.4         | 1.6         |             |             |             |
| Public expenditure on health as % of total expenditure on health             | 52.6        | 57.7        |             |             |             |
| Private expenditure on health as % of total expenditure on health            | 47.4        | 42.3        |             |             |             |
| Public expenditure on health as % of general government expenditure          | 3.6         | 4.2         |             |             |             |
| Social security expenditure on health as % of public expenditure on health   | 0.0         | 0.0         |             |             |             |
| Tax funded expenditure on health as % of public health expenditure on health | 92.5        | 96.2        |             |             |             |
| External resources for health as % of public expenditure on health           | 7.5         | 3.8         |             |             |             |
| Private insurance on health as % of private expenditure on health            | 0.0         | 0.0         |             |             |             |
| Out-of-pocket disbursements for health as % of private expenditure on health | 100         | 100         |             |             |             |
| Per capita total expenditure on health at official exchange rate (US \$)     | 6           | 8           |             |             |             |
| Per capita total expenditure on health at international dollar rate          | 34          | 35          | 38          | 40          | 34          |
| Per capita public expenditure on health at official exchange rate (US \$)    | 3           | 5           | n.a.        | 5           | 4           |
| Per capita government expenditure on health at international dollar rate     | 17          | 19          | 20          | 22          | 18          |
| Per capita total expenditure on health in international dollars              | 9           | 11          | n.a.        | 9           | 8           |
| Per capita public expenditure on health in international dollars             | 5           | 6           |             |             |             |

<sup>52</sup> Taken from the (i) World Health Report 2001, WHO. Statistical annex and (ii) World Health Report 2003, statistical annex.

<sup>53</sup> CSO uses a baseline population of 22.2 M for 2003 (1382).

<sup>54</sup> CSO uses an annual growth rate of 1.92%. In the costing assumptions, CSO data are used.

## Annex 2 Determination of Indicators and Targets

### a. Sub-program Objectives and Expected Results

#### A Program Objectives

1. Reducing the high levels of mortality and morbidity, especially among females and the rural population, mainly through the implementation of the Basic Package of Health Services. 2. Building the human resource and institutional capacity of the MOH to fulfill its planning, leadership, and stewardship roles in the health sector and to ensure the efficient use of scarce resources.

#### Sub-program Objectives and Expected Results

| Sectoral year  | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | Notes  |
|--|--|--|--|--|--|--|--|--|--|
| Fiscal year #  | 1  | 2  | 3  | 4  | 5  | 6  | 7  |  |  |
| <b>Sector Objectives</b>   | <b>Expected Results</b>  | <b>Expected Results</b>  | <b>Expected Results</b>  | <b>Expected Results</b>  | <b>Expected Results</b>  | <b>Expected Results</b>  | <b>Expected Results</b>  | <b>Expected Results</b>  |  |
| (Summary of Sub-Programme objective)   | [List major results which this sub-programme is expected to achieve during the 1383-1385 time period.]                     | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.] | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.]                   | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.] | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.] | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.] | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.] | [List major results which this sub-programme is expected to achieve during the 1386 - 1389 time period.] |  |
| <b>Millennium Development Goals</b>  |  |  |  |  |  |  |  |  |  |
| 1. Maternal health: Three-quarters reduction in maternal mortality rate. (2003 = 1,600 per 100,000)<br>2. Child mortality: Two-thirds reduction in under-five mortality rate. (2003 = 275 per 1,000) |  |  |  |  |  |  |  |  |  |
| <b>Subprogram 1: (e.g. road infrastructure)</b>  |  |  |  |  |  |  |  |  |  |
| <b>Basic Package of Health Services</b>  | The Basic Package of Health Services (BPHS) is made available to the entire population of Afghanistan.                     | 80% of population covered  | 90% of population covered  | 90% of population covered  | 90% of population covered  | 90% of population covered  | 90% of population covered  | 90% of population covered  |  |
| <b>Subprogram 2:</b>   |  |  |  |  |  |  |  |  |  |
| <b>Special Programs (includes 1) EPI, 2) malaria/leishmaniasis; 3) public nutrition, 4) tuberculosis, 5) helminthes, 6) emergency response and preparation, and, 7)</b>                              | 1) > 90% childbearing age women receive at least three doses of tetanus toxoid, and > 90% U5C receive measles vaccination; | 1) Wild polio eradicated, maternal and neo-natal tetanus eliminated;                                     | 1) > 90% childbearing age women receive at least three doses of tetanus toxoid, and > 90% U5C receive measles vaccination; | 1) Wild polio eradicated, maternal and neo-natal tetanus eliminated;                                     | 1) Wild polio eradicated, maternal and neo-natal tetanus eliminated;                                     | 1) Wild polio eradicated, maternal and neo-natal tetanus eliminated;                                     | 1) Wild polio eradicated, maternal and neo-natal tetanus eliminated;                                     | 1) Wild polio eradicated, maternal and neo-natal tetanus eliminated;                                     | Polio free and keep less than 1/1000 neonatal tetanus in all districts |

|  |   |   |
|--|---|---|
|  |   | 100% of health facilities, and 80% of households have access to iodized salt.   |
| 2) Population at risk of malaria will have access to prompt and appropriate treatment of malaria | 2) Malaria morbidity reduced by 20%;<br>3) To improve nutrition status through ensuring that over 90% of household have access to iodized salt, establishing treatment and management system of severe malnutrition, and reducing morbidity and mortality associated with micronutrient deficiency diseases   | 2) Malaria morbidity reduced by 50%;<br>3) > 90% of households have access to iodized salt; decreasing iodine and other micronutrient deficiency disorders;   |
|  | 4) To ensure the availability of early diagnosis and quality, effective TB treatment sever vices through DOTS strategy<br>6) To establish effective and affordable emergency preparedness and response health system in Afghanistan<br>7) To reduce risks of HIV infection among high risk groups, vulnerable populations through establishing national surveillance system, expanding access to STI care services, and accelerating knowledge of HIV/AIDS all over Afghanistan | 4) 70% of expected TB cases detected, and 90% of cases cured;<br>6) provincial preparedness and response units established within PHC<br>7) nationwide HIV/AIDS surveillance system established   |
|  |   | 4) 85% of expected TB cases detected, and 90% of cases cured;<br>6) > 90% of emergencies/outbreaks managed by provincial and district teams;<br>7) Maintain low prevalence rate among high risk groups, very low prevalence rate among general populations; |
|  |   | < 1% case fatality rate for obstetric procedures  |
|  |   | < 1% case fatality rate for obstetric procedures  |
|  |   | 50% of BHCs and 55% of CHCs staffed with midwives. Ratio of allied health care workers to physicians increased.   |
|  |   | 66% of PHO allocated budget expended  |

**b. Indicators and Targets for the Special Health Programs**

| <b>Expected results 2006-2010</b>  | <b>Program</b> | <b>Major service delivery target</b>   | <b>Baseline data in 2002-2003</b>  | <b>Target for 2010</b>   | <b>Target for 2015</b>   |
|--|----------------|--|--|--|--|
| Wild polio and maternal and neonatal tetanus are eliminated  | EPI            | No of polio cases and neonatal cases   | 10 confirmed polio and 6 neonatal tetanus cases per 1,000 live births  | Zero cases and less than 1/1,000 neonatal tetanus cases in all districts   | Polio free and neonatal tetanus less than 1/1,000 in all districts   |
| More than 90% of household will have access to iodized salt, and a dramatic decrease in iodine deficiency disorders, and other micronutrient deficiency disorders will occur | P Nutrition    | Universal salt iodization and treatment and management of severe malnutrition  | 3 salt iodizing factories, nil therapeutic feeding training units (TFU) training center, and nil district TFU. | 8 iodizing salt factories, 8 provincial TFU training centers and 30 district TFUs  | More than 8 functioning salt iodizing factories, 10 provincial TFU training centers and 50 district TFUs                         |
| Detect 85% of all expected tuberculosis and cure 90%   | TB             | Make quality DOTS available in all districts of Afghanistan  | 35% of all districts and 83 facilities provide DOTS services   | 100% coverage of all districts and 600 facilities provide diagnosis/DOTS services  | Keep 100% coverage and 650 facilities provide diagnosis/DOTS services  |
| Malaria morbidity reduced by 50%   | Malaria        | Quality malaria treatment services available in all districts and increase availability of insecticide treated bed nets (ITNs) | No adequate services in most endemic areas, and 500,000 INTs have been distributed                             | 50% of health facilities provide adequate malaria management, and 50% of population at risk areas use ITNs                                       | 100% of health facilities, and 80% of population at risk areas   |
| Low prevalence rate among high risk groups, and very low prevalence rate among general populations   | STI/HIV/AIDS   | To establish a safe blood supply system and STI/HIV care and support service system in all provinces                           | 11 hospitals can do blood screening tests, and currently neither VCCT nor quality STI services are available   | 100 % of national and provincial hospitals provide blood screening services, and 100% provinces have quality STI/HIV care and treatment services | 100% of district hospitals provide blood screening services, and 100% provinces have quality STI/HIV care and treatment services |

### **Annex 3 Detailed Costing Calculations and Tables**

#### **1. Basic Package of Health Services**

The table below provides the breakdown in costs for the various components in the BPHS. It excludes capital investments related to expanding the service delivery network (construction of 1,075 rural Health Clinics and 35 first level referral Hospitals). More details on the construction programme are provided in the Development Program and Budget section.

**Estimated costs of Basic Package of Health Services (1383-1394 (2004-2015)).**

|  | 1382<br>Year 0<br>Mar'03-Mar'04 | 1383<br>Year 1<br>2004 | 1384<br>Year 2<br>2005 | 1385<br>Year 3<br>2006 | 1386-1389<br>Yrs 4-7<br>2007-2010 | 1390-1394<br>Yrs 8-12<br>Mar'15-Mar'16 |
|--|---------------------------------|------------------------|------------------------|------------------------|-----------------------------------|--|
| 1.1 Population annual growth rate (%)                              | 1.82%                           | 1.82%                  | 1.82%                  | 1.82%                  | 1.82%                             | 1.82%                                  |
| 1.2 Population (million) CSD 1382*                                 | 22.20                           | 22.63                  | 23.06                  | 23.50                  | 25.85                             | 27.65                                  |
| 1.3 Population covered (million)                                   | 8.95                            | 10.10                  | 10.45                  | 10.80                  | 23.26                             | 26.50                                  |
| 1.4 % of population covered  | 40                              | 80                     | 80                     | 80                     | 90                                | 95                                     |
| <b>2 Cost Estimates in per capita USD</b>                          |                                 |                        |                        |                        |                                   |  |
| 2.1 Inflation rate   | 0%                              | 0%                     | 0%                     | 0%                     | 0%                                | 0%                                     |
| 2.2 Health post/Outreach services***                               | 107                             | 107                    | 107                    | 107                    | 107                               | 107                                    |
| 2.3 Basic Health Centers and Comprehensive Health Centers***       | 2.56                            | 2.56                   | 2.56                   | 2.56                   | 2.56                              | 2.56                                   |
| 2.4 Mental Health & Disability ***                                 |                                 |                        |                        |                        | 0.25                              | 0.25                                   |
| 2.5 District hospital services***                                  | 120                             | 120                    | 120                    | 120                    | 120                               | 120                                    |
| 2.6 <b>Per capita cost of basic package***</b>                     | <b>\$4.83</b>                   | <b>\$4.83</b>          | <b>\$4.83</b>          | <b>\$5.00</b>          | <b>\$5.00</b>                     | <b>\$5.00</b>                          |
| <b>3 Increased percentage of facilities/population</b>             |                                 |                        |                        |                        |                                   |  |
| 3.1 District hospital population                                   | 300,000                         | 300,000                | 300,000                | 300,000                | 300,000                           | 300,000                                |
| 3.2 Comprehensive Health Center population                         | 60,000                          | 60,000                 | 60,000                 | 60,000                 | 60,000                            | 60,000                                 |
| 3.3 Basic health centers population                                | 30,000                          | 30,000                 | 30,000                 | 30,000                 | 30,000                            | 30,000                                 |
| 3.4 Health post population   | 1,500                           | 1,500                  | 1,500                  | 1,500                  | 1,500                             | 1,500                                  |
| <b>4 Total cost estimated per year (USD million)</b>               |                                 |                        |                        |                        |                                   |  |
| 4.1 Health post/Outreach services                                  | 5.51                            | 19.40                  | 15.77                  | 20.15                  | 55.10                             | 136.17                                 |
| 4.2 Basic health centers and comprehensive health centers          | 22.70                           | 46.28                  | 47.17                  | 40.07                  | 226.92                            | 324.93                                 |
| 4.3 Mental Health & Disability                                     | 0.00                            | 0.00                   | 0.00                   | 4.70                   | 22.19                             | 31.77                                  |
| 4.4 District hospital services                                     | 10.65                           | 21.70                  | 22.12                  | 22.54                  | 106.40                            | 152.35                                 |
| 4.5 <b>Total cost of Basic Package of Health Services (US\$ M)</b> | <b>\$92.86</b>                  | <b>\$97.38</b>         | <b>\$99.05</b>         | <b>\$95.46</b>         | <b>\$458.60</b>                   | <b>\$645.22</b>                        |

In 1982 (2003) about 40% of the population is covered by the BPHS

\* CSD data 1382 used for population 22.2 million

\*\*Population to be covered 80% upto 1385, 80% upto 1389 and 95% upto 1393

\*\*\* Costing of the Basic Package of Health Services for Afghanistan March 31, 2003

\*\*\*\*Mental Health and Disability 0.25 per capita is added from 1385 onwards

## 2. Special Programs

### (a) Expanded Programme on Immunization

| Syringe/Needle Forecast for the Year 2003-2010  |  |                  |                  |                |                  |                |                |                  |                  |
|---|--|------------------|------------------|----------------|------------------|----------------|----------------|------------------|------------------|
|   | Year   | 2003             | 2004             | 2005           | 2006             | 2007           | 2008           | 2009             | 2010             |
| <b>early<br/>Population<br/>Projections</b>   | Total Population                             | 22,200,000       | 22,636,240       | 23,060,664     | 23,503,429       | 23,954,694     | 24,414,625     | 24,883,385       | 25,361,146       |
|   | Under one (4% of population)                 | 888,000          | 905,050          | 922,427        | 940,137          | 958,188        | 976,585        | 995,335          | 1,014,446        |
|   | Under 5 (20% of population)                  | 4,440,000        | 4,525,248        | 4,612,133      | 4,700,686        | 4,790,939      | 4,882,925      | 4,976,677        | 5,072,229        |
|   | Pregnant Women (5% of population)            | 1,110,000        | 1,131,312        | 1,153,033      | 1,175,171        | 1,197,735      | 1,220,731      | 1,244,169        | 1,268,057        |
|   | CBA Women (20% of population)                | 4,440,000        | 4,525,248        | 4,612,133      | 4,700,686        | 4,790,939      | 4,882,925      | 4,976,677        | 5,072,229        |
|   | BCG AD Syringe, 0.05/0.1ml, 27G, 10mm        | 1,065,600        | 1,086,060        | 1,106,912      | 1,128,165        | 1,149,825      | 1,171,902      | 1,194,402        | 1,217,335        |
| <b>Quantities<br/>required for<br/>routine EPI</b>  | Mea/DTP/TT etc. AD Syringe, 0.5ml, 23G, 25mm | 6,926,400        | 7,059,387        | 7,194,927      | 7,333,070        | 7,473,865      | 7,617,363      | 7,763,616        | 7,912,678        |
|   | BCG/Hib Reconstitution Syringe, 2.0 ml       | 66,600           | 67,879           | 69,182         | 70,510           | 71,864         | 73,244         | 74,650           | 76,083           |
|   | Mea/YF Reconstitution Syringe 5.0 ml         | 133,200          | 135,757          | 138,364        | 141,021          | 143,728        | 146,488        | 149,300          | 152,167          |
|   | Safety Box, 5 Litre (Capacity 100 syringes)  | 81,918           | 83,491           | 85,094         | 86,728           | 88,393         | 90,090         | 91,820           | 93,563           |
|   | Mea/YF etc. AD Syringe, 0.5ml, 23G, 25mm     | 4,528,800        | 4,615,753        |                | 4,794,659        |                |                | 5,173,674        |                  |
|   | MNT AD Syringe, 0.5ml, 23G, 25mm             | 15,984,000       | 16,290,893       |                | 575,364          |                |                | 620,841          |                  |
| <b>Quantities<br/>required for<br/>SIAs activities</b>  | Mea/YF Reconstitution Syringe 5.0 ml         | 543,456          | 553,890          |                |                  |                |                |                  |                  |
|   | Safety Box, 5 Litre (Capacity 100 syringes)  | 210,563          | 214,605          | -              | 53,701           | -              | -              | -                | 57,945           |
|   | BCG AD Syringe, 0.05/0.1ml, 27G, 10mm        | 82,104           | 96,171           | 106,928        | 119,360          | 132,230        | 26,954         | 30,218           | 33,598           |
|   | Mea/DTP/TT etc. AD Syringe, 0.5ml, 23G, 25mm | 493,852          | 503,334          | 562,643        | 624,044          | 696,190        | 779,637        | 866,031          | 964,555          |
|   | BCG/Hib Reconstitution Syringe, 2.0 ml       | 2,298            | 2,342            | 2,625          | 2,919            | 3,223          | 3,538          | 3,949            | 4,375            |
|   | Mea/YF Reconstitution Syringe 5.0 ml         | 5,361            | 5,464            | 6,047          | 6,811            | 7,603          | 8,423          | 9,443            | 10,500           |
| <b>Cost as per<br/>2004 price<br/>including<br/>freight + 10%<br/>annual<br/>increase<br/>(routine EPI)</b> | Safety Box, 5 Litre (Capacity 100 syringes)  | 60,292           | 69,130           | 77,308         | 85,774           | 95,553         | 106,712        | 119,320          | 133,449          |
|   | Total Routine EPI Cost                       | 643,907          | 676,441          | 755,551        | 838,908          | 934,799        | 925,263        | 1,028,962        | 1,146,477        |
|   | Mea/YF etc. AD Syringe, 0.5ml, 23G, 25mm     | 322,903          | 329,103          | -              | 408,029          | -              |                |                  | 630,671          |
|   | MNT AD Syringe, 0.5ml, 23G, 25mm             | 1,139,659        | 1,273,948        | -              | -                |                |                |                  |                  |
|   | Mea/YF Reconstitution Syringe 5.0 ml         | 21,874           | 22,294           | -              | 27,790           |                |                | 42,838           |                  |
|   | Safety Box, 5 Litre (Capacity 100 syringes)  | 154,974          | 177,693          | -              | 53,110           |                |                | 82,630           |                  |
| <b>Cost as per<br/>2004 price<br/>including<br/>freight+ 10%<br/>annual<br/>increase<br/>(SIAs)</b>         | 1,639,411                                    | 1,803,038        | -                | 488,929        | -                |                |                | 756,139          |                  |
|   | <b>Total SIAs Cost</b>                       | <b>2,283,318</b> | <b>2,479,480</b> | <b>755,551</b> | <b>1,327,837</b> | <b>934,799</b> | <b>925,263</b> | <b>1,028,962</b> | <b>1,902,616</b> |
| <b>Grand Total for Syringes</b>   |  |                  |                  |                |                  |                |                |                  |                  |

Dated: 18/01/2004

Dated: 18.01.2004

|   |   | Syringe Forecast 2011-2015 |                  |                  |                  | Total 2003-2015  |                   |
|---|---|----------------------------|------------------|------------------|------------------|------------------|-------------------|
|   |   | Year                       | 2011             | 2012             | 2013             | 2014             | 2015              |
| <b>Yearly Population Projections</b>  | Total Population  | 25,848,080                 | 26,344,363       | 26,850,175       | 27,365,699       | 27,891,120       |                   |
|   | Under one (4% of population)  | 1,033,923                  | 1,053,775        | 1,074,007        | 1,094,628        | 1,115,645        |                   |
|   | Under 5 (20% of population)   | 5,169,616                  | 5,268,873        | 5,370,035        | 5,473,140        | 5,578,224        |                   |
|   | Pregnant Women (5% of population)                                     | 1,292,404                  | 1,317,218        | 1,342,509        | 1,368,285        | 1,394,556        |                   |
|   | CBA Women (20% of population)   | 5,169,616                  | 5,268,873        | 5,370,035        | 5,473,140        | 5,578,224        |                   |
|   | BCG AD Syringe, 0.05/0.1ml, 27G, 10mm                                 | 1,240,708                  | 1,264,529        | 1,288,808        | 1,313,554        | 1,338,774        |                   |
| <b>Quantities required for routine EPI</b>  | Mea/DTP/TT etc. AD Syringe, 0.5ml, 23G, 25mm                          | 8,064,601                  | 8,219,441        | 8,377,255        | 8,538,098        | 8,702,029        |                   |
|   | BCG/Hib Reconstitution Syringe, 2.0 ml                                | 77,544                     | 79,033           | 80,551           | 82,097           | 83,673           |                   |
|   | Mea/YF Reconstitution Syringe 5.0 ml                                  | 155,088                    | 158,066          | 161,101          | 164,194          | 167,347          |                   |
|   | Safety Box, 5 Litre (Capacity 100 syringes)                           | 95,379                     | 97,211           | 99,077           | 100,979          | 102,918          |                   |
|   | Mea/YF etc. AD Syringe, 0.5ml, 23G, 25mm                              |                            |                  |                  | 5,582,603        |                  |                   |
|   | MNT AD Syringe, 0.5ml, 23G, 25mm                                      |                            |                  |                  | 669,912          |                  |                   |
| <b>Quantities required for SIAs activities</b>                                      | Mea/YF Reconstitution Syringe 5.0 ml                                  |                            |                  |                  | -                | 62,525           |                   |
|   | Safety Box, 5 Litre (Capacity 100 syringes)                           |                            |                  |                  | -                |                  |                   |
|   | BCG AD Syringe, 0.05/0.1ml, 27G, 10mm                                 | 131,267                    | 145,421          | 29,643           | 33,233           | 36,950           |                   |
|   | Mea/DTP/TT etc. AD Syringe, 0.5ml, 23G, 25mm                          | 686,298                    | 765,641          | 857,412          | 952,425          | 1,060,777        |                   |
|   | BCG/Hib Reconstitution Syringe, 2.0 ml                                | 3,210                      | 3,545            | 3,891            | 4,343            | 4,811            |                   |
|   | Mea/YF Reconstitution Syringe 5.0 ml                                  | 7,491                      | 8,362            | 9,263            | 10,385           | 11,547           |                   |
| <b>Cost as per 2004 price including freight + 10% annual increase (routine EPI)</b> | Safety Box, 5 Litre (Capacity 100 syringes)                           | 94,330                     | 105,085          | 117,357          | 131,223          | 146,761          |                   |
|   | Total Routine EPI Cost  | 922,596                    | 1,028,053        | 1,017,565        | 1,131,609        | 1,260,847        | 12,310,979        |
|   | Cost as per 2004 price including freight + 10% annual increase (SIAs) |                            |                  |                  | 680,519          | -                |                   |
|   | Mea/YF etc. AD Syringe, 0.5ml, 23G, 25mm                              |                            | -                |                  |                  |                  |                   |
|   | MNT AD Syringe, 0.5ml, 23G, 25mm                                      |                            | -                |                  | 46,224           | -                |                   |
|   | Mea/YF Reconstitution Syringe 5.0 ml                                  |                            | -                |                  | 89,161           | -                |                   |
| <b>Total SIAs Cost</b>  | Safety Box, 5 Litre (Capacity 100 syringes)                           |                            | -                |                  | 815,904          | -                |                   |
|   | <b>Grand Total for Syringes</b>                                       | <b>922,596</b>             | <b>1,028,053</b> | <b>1,017,565</b> | <b>1,947,513</b> | <b>1,260,847</b> | <b>17,814,399</b> |

**Vaccine Forecast for the Year 2003-2010**

|   | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Yearly Population Projections</b>                  |             |             |             |             |             |             |             |             |
| Total Population                                      | 22,200,000  | 22,626,240  | 23,060,664  | 23,503,429  | 23,954,694  | 24,414,625  | 24,883,385  | 25,361,146  |
| Under one (4% of population)                          | 888,000     | 905,050     | 922,427     | 940,137     | 958,188     | 976,585     | 995,335     | 1,014,446   |
| Under 5 (20% of population)                           | 4,440,000   | 4,525,248   | 4,612,133   | 4,700,686   | 4,790,939   | 4,882,925   | 4,976,677   | 5,072,229   |
| Pregnant Women (5% of population)                     | 1,110,000   | 1,131,312   | 1,153,033   | 1,175,171   | 1,197,735   | 1,220,731   | 1,244,169   | 1,268,057   |
| CBA Women (20% of population)                         | 4,440,000   | 4,525,248   | 4,612,133   | 4,700,686   | 4,790,939   | 4,882,925   | 4,976,677   | 5,072,229   |
| <b>BCG Doses</b>                                      |             |             |             |             |             |             |             |             |
| DPT Doses   |             |             |             |             |             |             |             |             |
| OPV For Routine                                       |             |             |             |             |             |             |             |             |
| OPV For NID/SNID                                      |             |             |             |             |             |             |             |             |
| Measles For Routine                                   |             |             |             |             |             |             |             |             |
| Measles For Campaign                                  |             |             |             |             |             |             |             |             |
| TT For Routine(Preg. Only)                            |             |             |             |             |             |             |             |             |
| TT For SIAs (100% of CBAs)                            |             |             |             |             |             |             |             |             |
| BCG Vaccine   | 98,703      | 131,956     | 150,106     | 165,248     | 187,615     | 200,132     | 220,099     | 242,402     |
| DPT Vaccine   |             |             |             |             |             |             |             |             |
| OPV For Routine                                       |             |             |             |             |             |             |             |             |
| per 2004 price including freight + 8% annual increase |             |             |             |             |             |             |             |             |
| OPV for NID/SNID                                      | 399,114     | 527,912     | 602,204     | 664,150     | 732,922     | 808,847     | 892,266     | 983,534     |
| Measles For Routine                                   | 458,895     | 455,765     | 502,870     | 551,616     | 606,475     | 667,750     | 735,752     | 810,806     |
| Measles For Campaign                                  |             |             |             |             |             |             |             |             |
| TT For Routine(Preg. Only)                            | 3,393,264   | 2,992,365   | 3,286,698   | 3,621,406   | -           | -           | -           | -           |
| TT For SIAs (100% of CBAs)                            | 217,129     | 182,458     | 192,437     | 212,208     | 234,306     | 257,174     | 282,536     | 310,512     |
| Total Cost Of Vaccines                                | 5,836,932   | 5,062,563   | 5,006,541   | 6,277,719   | 2,083,842   | 2,294,164   | 2,528,070   | 3,992,208   |

|                               | <b>2003</b>      | <b>2004</b>      | <b>2005</b>      | <b>2006</b>      | <b>2007</b>      | <b>2008</b>      | <b>2009</b>      | <b>2010</b>      |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Rec.Cost Total for EPI</b> | <b>8,120,310</b> | <b>7,542,043</b> | <b>5,762,092</b> | <b>7,605,556</b> | <b>3,018,641</b> | <b>3,219,427</b> | <b>3,557,032</b> | <b>5,894,843</b> |
| Capital Costs                 |                  |                  |                  |                  |                  |                  |                  |                  |
| <b>Grand Total</b>            |                  | <b>1,177,786</b> | <b>385,365</b>   | <b>466,136</b>   | <b>397,488</b>   | <b>868,711</b>   | <b>727,613</b>   | <b>453,036</b>   |

|                                      |                                   | Vaccine Forecast for the Year 2011-2015 |                  |                  |                  |                  | <b>Total</b>      |
|--------------------------------------|-----------------------------------|---|------------------|------------------|------------------|------------------|-------------------|
|                                      |                                   | <b>2011</b>                             | <b>2012</b>      | <b>2013</b>      | <b>2014</b>      | <b>2015</b>      |                   |
| <b>Yearly Population Projections</b> | Total Population                  | 25,848,080                              | 26,344,363       | 26,850,175       | 27,365,699       | 27,891,120       |                   |
|                                      | Under one (4% of population)      | 1,033,923                               | 1,053,775        | 1,074,007        | 1,094,628        | 1,115,645        |                   |
|                                      | Under 5 (20% of population)       | 5,169,616                               | 5,268,873        | 5,370,035        | 5,473,140        | 5,578,224        |                   |
|                                      | Pregnant Women (5% of population) | 1,292,404                               | 1,317,218        | 1,342,509        | 1,368,285        | 1,394,556        |                   |
|                                      | CBA Women (20% of population)     | 5,169,616                               | 5,268,873        | 5,370,035        | 5,473,140        | 5,578,224        |                   |
|                                      | BCG Doses                         | 1,550,885                               | 1,580,662        | 1,611,011        | 1,641,942        | 1,673,467        |                   |
|                                      | DPT Doses                         | 4,342,477                               | 4,425,853        | 4,510,829        | 4,597,437        | 4,685,708        |                   |
|                                      | OPV For Routine                   | 4,342,477                               | 4,425,853        | 4,510,829        | 4,597,437        | 4,685,708        |                   |
|                                      | OPV for NID/SNID                  |   |                  |                  |                  |                  |                   |
|                                      | Measles For Routine               | 1,550,885                               | 1,580,662        | 1,611,011        | 1,641,942        | 1,673,467        |                   |
| <b>EPI programme</b>                 | Measles For Campaign              | 5,273,008                               | 5,374,250        | 5,477,436        | 5,582,603        | 5,689,788        |                   |
|                                      | TT For Routine(Preg. Only)        | 3,618,731                               | 3,688,211        | 3,759,025        | 3,831,198        | 3,904,757        |                   |
|                                      | TT For SIAs (100% of CBAs)        |   |                  |                  |                  |                  |                   |
|                                      | BCG Vaccine                       | 247,056                                 | 251,799          | 256,634          | 261,561          | 266,583          |                   |
|                                      | DPT Vaccine                       | 1,002,418                               | 1,021,664        | 1,041,280        | 1,061,272        | 1,081,649        |                   |
|                                      | OPV For Routine                   | 826,373                                 | 842,240          | 858,411          | 874,892          | 891,690          |                   |
|                                      | OPV for NID/SNID                  | -                                       | -                | -                | -                | -                |                   |
|                                      | Measles For Routine               | 316,474                                 | 322,550          | 328,743          | 335,055          | 341,488          |                   |
|                                      | Measles For Campaign              |   |                  |                  |                  |                  |                   |
|                                      | TT For Routine(Preg. Only)        | 444,235                                 | 452,765          | 461,458          | 470,318          | 479,348          |                   |
|                                      | TT For SIAs (100% of CBAs)        | -                                       | -                | -                | -                | -                |                   |
| <b>Total Cost Of Vaccines</b>        |                                   | <b>2,836,556</b>                        | <b>2,891,018</b> | <b>2,946,525</b> | <b>3,007,753</b> | <b>3,060,758</b> | <b>49,124,709</b> |
|                                      |                                   |   |                  |                  |                  |                  |                   |
|                                      |                                   | <b>2011</b>                             | <b>2012</b>      | <b>2013</b>      | <b>2014</b>      | <b>2015</b>      |                   |
|                                      |                                   | <b>Rec.Cost Total for EPI</b>           | <b>3,759,152</b> | <b>3,919,071</b> | <b>3,964,091</b> | <b>4,255,266</b> | <b>4,321,605</b>  |
|                                      |                                   | Capital Costs                           | 440,338          | 584,586          | 529,613          | 653,461          | 628,138           |
|                                      |                                   | <b>Grand Total</b>                      | <b>4,199,489</b> | <b>4,503,657</b> | <b>4,493,703</b> | <b>4,908,727</b> | <b>4,949,743</b>  |
|                                      |                                   |   |                  |                  |                  |                  | <b>74,251,377</b> |

## (b) Malaria and Leishmaniasis

Dated: 17 Jan. 2

|   |  | Malaria Control (Beyond BPHS) Costing Forecast 2004 -2010 |                |                  |                  |                  |                  |                  |
|---|--|---|----------------|------------------|------------------|------------------|------------------|------------------|
|   |  | Year  | 2004           | 2005             | 2006             | 2007             | 2008             | 2009             |
| Target population   | Total Population   |   | 22,626,240     | 23,060,664       | 23,503,429       | 23,954,694       | 24,414,625       | 24,883,385       |
|   | High Endemic 14 provinces population                                   |   | 7,851,917      | 8,002,674        | 8,156,325        | 8,312,926        | 8,472,535        | 8,635,207        |
|   | Rough estimation of malaria infection cases                            |   | 2,700,000      | 2,430,000        | 2,187,000        | 1,968,300        | 1,771,470        | 1,594,323        |
|   | Estimated Severe Plasmodium falciparum cases                           |   | 540,000        | 486,000          | 437,400          | 393,660          | 354,294          | 318,865          |
| Treatment   | Malaria drugs (Artesunate/Fansidar)                                    | R   | 162,000        | 174,960          | 209,952          | 188,957          | 170,061          | 191,319          |
|   | Provision of outbreak response contingency stocks                      | R   | 100,000        | 100,000          | 100,000          | 100,000          | 100,000          | 100,000          |
|   | <b>Total Drugs for severe Malaria</b>                                  |   | <b>262,000</b> | <b>274,960</b>   | <b>309,952</b>   | <b>288,957</b>   | <b>270,061</b>   | <b>291,319</b>   |
| Human resource development and training for Malaria treatment in high endemic areas | Training for doctors in 14 provinces                                   | R   | 10,500         | 10,500           | 10,500           | 10,500           | 10,500           | 10,500           |
|   | Training for HP/BHC CHC staff in 14 provinces                          | R   | 42,000         | 42,000           | 42,000           | 42,000           | 42,000           | 42,000           |
|   | Master training for the integration with BPHS                          | R   | 18,000         | 18,000           | 18,000           | 18,000           | 18,000           | 18,000           |
|   | <b>Total Training Costs for DOTS</b>                                   |   | <b>70,500</b>  | <b>70,500</b>    | <b>70,500</b>    | <b>70,500</b>    | <b>70,500</b>    | <b>70,500</b>    |
| Insecticide treated nets (ITNs), social marketing                                   | <b>Total distribution No. of ITNs for 14 provinces</b>                 |   | <b>296,779</b> | <b>373,381</b>   | <b>380,550</b>   | <b>378,059</b>   | <b>365,317</b>   | <b>392,716</b>   |
|   | Procurement and targeted distributions of ITNs for widows              | R   | 37,016         | 37,727           | 38,451           | 19,595           | 19,971           | 20,354           |
|   | Subsidies of ITNs for rural population in 14 provinces                 | R   | 252,920        | 322,221          | 328,407          | 334,713          | 341,139          | 347,689          |
| Advocacy  | User contributions of ITNs distribution in rural areas of 14 provinces | UC  | 252,920        | 322,221          | 328,407          | 334,713          | 341,139          | 347,689          |
|   | Social marketing/user charges of ITNs in urban areas of 14 provinces   | UC  | 50,701         | 64,593           | 65,833           | 67,097           | 68,385           | 69,698           |
|   | <b>Total ITNs for 14 provinces</b>                                     |   | <b>593,558</b> | <b>746,761</b>   | <b>761,099</b>   | <b>756,117</b>   | <b>770,635</b>   | <b>785,431</b>   |
| Community mobilization  | Community mobilization   | R   | 30,000         | 30,000           | 30,000           | 30,000           | 30,000           | 30,000           |
|   | <b>Total for Malaria program (of Recurrent costs</b>                   |   | <b>956,058</b> | <b>1,122,221</b> | <b>1,171,551</b> | <b>1,145,514</b> | <b>1,141,196</b> | <b>1,177,250</b> |
|   | <b>Grand Total for Malaria program</b>                                 |   | <b>956,058</b> | <b>1,122,221</b> | <b>1,171,551</b> | <b>1,145,574</b> | <b>1,141,196</b> | <b>1,177,250</b> |
| Potential user charge   |  |   | 303,621        | 386,814          | 394,241          | 401,810          | 409,525          | 417,388          |

Dated: 17 Jan, 2004

| Malaria Control (Beyond BPHS) Costing Forecast 2004 -2010                           |  | 2011-2015        |                  |                  |                  |                  |
|---|--|------------------|------------------|------------------|------------------|------------------|
|   | Year   | 2011             | 2012             | 2013             | 2014             | 2015             |
| Target population   | Total Population   | 25,848,080       | 26,344,363       | 26,850,175       | 27,365,699       | 27,891,120       |
|   | High Endemic 14 provinces population                                   | 8,969,982        | 9,142,206        | 9,317,736        | 9,496,637        | 9,678,972        |
|   | Rough estimation of malaria infection cases                            | 1,291,402        | 1,162,261        | 1,046,035        | 941,432          | 847,289          |
| Treatment   | Estimated severe Plasmodium falciparum cases                           | 258,280          | 232,452          | 209,207          | 188,286          | 169,458          |
|   | Malaria drugs (Artesunate/Fansidar)                                    | R                | 185,962          | 167,366          | 175,734          | 158,161          |
|   | Provision of outbreak response contingency stocks                      | R                | 100,000          | 100,000          | 100,000          | 100,000          |
| <b>Total Drugs for severe Malaria</b>   |  | <b>285,962</b>   | <b>267,366</b>   | <b>275,734</b>   | <b>258,161</b>   | <b>262,679</b>   |
| Human resource development and training for Malaria treatment in high endemic areas | Training for doctors in 14 provinces                                   | R                | 10,500           | 10,500           | 10,500           | 10,500           |
|   | Training for HP/BHC CHC staff in 14 provinces                          | R                | 42,000           | 42,000           | 42,000           | 42,000           |
|   | Master training for the integration with BPHS                          | R                | 18,000           | 18,000           | 18,000           | 18,000           |
| <b>Total Training Costs for DOTS</b>  |  | <b>70,500</b>    | <b>70,500</b>    | <b>70,500</b>    | <b>70,500</b>    | <b>846,000</b>   |
| <b>Total distribution No. of ITNs for 14 provinces</b>                              |  | <b>407,941</b>   | <b>415,773</b>   | <b>423,756</b>   | <b>43,892</b>    | <b>440,184</b>   |
| Insecticide treated nets (ITNs), social marketing                                   | Procurement and targeted distributions of ITNs for widows              | R                | 21,144           | 21,549           | 21,963           | 22,385           |
|   | Subsidies of ITNs for rural population in 14 provinces                 | R                | 361,169          | 368,103          | 375,171          | 382,374          |
|   | User contributions of ITNs distribution in rural areas of 14 provinces | UC               | 361,169          | 368,103          | 375,171          | 382,374          |
| Advocacy  | Social marketing/user charges of ITNs in urban areas of 14 provinces   | UC               | 72,401           | 73,791           | 75,207           | 76,651           |
|   | <b>Total ITNs for 14 provinces</b>                                     | <b>815,881</b>   | <b>831,546</b>   | <b>847,512</b>   | <b>863,784</b>   | <b>880,369</b>   |
|   | Community mobilization   | R                | 30,000           | 30,000           | 30,000           | 30,000           |
| <b>Total for Malaria program of Recurrent costs</b>                                 |  | <b>1,202,343</b> | <b>1,199,412</b> | <b>1,223,746</b> | <b>1,222,445</b> | <b>1,243,548</b> |
| <b>Grand Total for Malaria program</b>  |  | <b>1,202,343</b> | <b>1,199,412</b> | <b>1,223,746</b> | <b>1,222,445</b> | <b>1,243,548</b> |
| Potential user charge   |  |                  | 433,569          | 441,894          | 450,378          | 459,025          |
|   |  |                  |                  |                  |                  | 467,839          |

**(c) Public Nutrition**

| Public Nutrition Costing Forecast 2004 -2010                 |   |                |                |                |                |                |
|--|---|----------------|----------------|----------------|----------------|----------------|
|  | Year  | 2004           | 2005           | 2006           | 2007           | 2008           |
| Total Population   |   | 22,626,240     | 23,060,664     | 23,503,429     | 23,954,694     | 24,414,625     |
| Target population  |   |                |                |                |                | 24,883,385     |
| Under one (4% of population)                                 |   | 905,050        | 922,427        | 940,137        | 958,188        | 976,585        |
| Under 5 (20% of population)                                  |   | 4,525,248      | 4,612,133      | 4,700,686      | 4,790,939      | 4,882,925      |
| Pregnant Women (5% of population)                            |   | 1,131,312      | 1,153,033      | 1,175,171      | 1,197,735      | 1,220,731      |
| CBA Women (20% of population)                                |   | 4,525,248      | 4,612,133      | 4,700,686      | 4,790,939      | 4,882,925      |
| Monitoring and quality control                               | R   | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         |
| Laboratory capacity and support (urine analysis)             | R   | 10,000         | 10,500         | 11,025         | 11,576         | 12,155         |
| Establishing Laboratory                                      | C   | 100,000        |                |                |                |                |
| Communication, social marketing and advocacy                 | R   | 50,000         | 50,960         | 51,938         | 52,936         | 53,952         |
| Training, global networks, debates an advocacy               | R   | 5,000          | 5,000          | 5,000          | 5,000          | 5,000          |
| <b>Total Universal Salt Iodization</b>                       |   | <b>175,000</b> | <b>176,460</b> | <b>177,963</b> | <b>179,512</b> | <b>181,107</b> |
| Monitoring and quality control                               | R   | 10,000         | 10,000         | 10,000         | 10,000         | 10,000         |
| Laboratory capacity and support (blood and urine analysis)   | R   | 10,000         | 15,000         | 22,500         | 33,750         | 50,625         |
| Communication, social marketing and advocacy                 | R   | 5,000          | 5,000          | 5,000          | 5,000          | 5,000          |
| Training, global networks, debates an advocacy               | R   |                |                |                |                |                |
| <b>Total Fortification of wheat</b>                          |   | <b>25,000</b>  | <b>30,000</b>  | <b>37,500</b>  | <b>48,750</b>  | <b>65,625</b>  |
| Support Training Center 10 TFUs in total                     | R   | 72,000         | 72,000         | 144,000        | 144,000        | 216,000        |
| Support for 50 District TFT centers in total                 | R   | -              | 60,000         | 123,600        | 190,962        | 262,254        |
| <b>Total Treatment of Severe Malnutrition</b>                |   | <b>72,000</b>  | <b>132,000</b> | <b>267,600</b> | <b>334,962</b> | <b>478,254</b> |
| Support for Baby Friendly Hospital Initiative                | Training and monitoring   |                | 8,000          | 8,000          | 8,000          | 8,000          |
| <b>Total Support for Baby Friendly Hospital Initiative</b>   |   | <b>8,000</b>   | <b>8,000</b>   | <b>8,000</b>   | <b>8,000</b>   | <b>8,000</b>   |
| Large scale pilot project for Micronutrients Supplementation | Implementation of Supplementation projects (three year projects, two times) | R              | 500,000        | 500,000        | 250,000        | 250,000        |
| <b>Annual Recurrent Cost Projections</b>                     |   | 680,000        | 746,460        | 641,063        | 721,224        | 632,987        |
| Annual Capital Costs Projections                             |   | 100,000        | -              | -              | -              | -              |
| <b>Grand Total for Public Nutrition</b>                      |   | <b>780,000</b> | <b>746,460</b> | <b>641,063</b> | <b>721,224</b> | <b>632,987</b> |
|  |   |                |                |                |                | <b>727,341</b> |
|  |   |                |                |                |                | <b>926,690</b> |
|  |   |                |                |                |                | <b>926,690</b> |

| Public Nutrition Costing Forecast 2004 -2010                                |      | 2011-2015        |                  |                  |                  |                   |
|---|------|------------------|------------------|------------------|------------------|-------------------|
|   | Year | 2011             | 2012             | 2013             | 2014             | 2015              |
| Total Population  |      | 25,848,080       | 26,344,363       | 26,850,175       | 27,365,699       | 27,891,120        |
| Under one (4% of population)  |      | 1,033,923        | 1,053,775        | 1,074,007        | 1,094,628        | 1,115,645         |
| Under 5 (20% of population)   |      | 5,169,616        | 5,268,873        | 5,370,035        | 5,473,140        | 5,578,224         |
| Pregnant Women (5% of population)   |      | 1,292,404        | 1,317,218        | 1,342,509        | 1,368,285        | 1,394,556         |
| CBA Women (20% of population)   |      | 5,169,616        | 5,268,873        | 5,370,035        | 5,473,140        | 5,578,224         |
| Monitoring and quality control  | R    | 10,000           | 10,000           | 10,000           | 10,000           | 10,000            |
| Laboratory capacity and support (urine analysis)                            | R    | 14,071           | 14,775           | 15,513           | 16,289           | 17,103            |
| Establishing laboratory   | C    |                  |                  |                  |                  |                   |
| Communication, social marketing and advocacy                                | R    | 57,120           | 58,216           | 59,334           | 60,473           | 61,634            |
| Training, global networks, debates an advocacy                              | R    | 5,000            | 5,000            | 5,000            | 5,000            | 5,000             |
| <b>Total Universal Salt Iodization</b>                                      |      | <b>86,191</b>    | <b>87,991</b>    | <b>89,847</b>    | <b>91,762</b>    | <b>93,738</b>     |
| Monitoring and quality control  | R    | 10,000           | 10,000           | 10,000           | 10,000           | 10,000            |
| Laboratory capacity and support (blood and urine analysis)                  | R    | 170,859          | 256,289          | 384,434          | 576,650          | 864,976           |
| Communication, social marketing and advocacy                                | R    |                  |                  |                  |                  |                   |
| Training, global networks, debates an advocacy                              | R    | 5,000            | 5,000            | 5,000            | 5,000            | 5,000             |
| <b>Total Fortification of wheat</b>   |      | <b>185,859</b>   | <b>271,289</b>   | <b>399,434</b>   | <b>591,650</b>   | <b>879,976</b>    |
| Support Training Center 10 TFUs in total                                    | R    | 288,000          | 360,000          | 360,000          | 370,800          | 381,924           |
| Support for 50 District TFT centers in total                                | R    | 501,502          | 590,339          | 540,000          | 600,000          | 600,000           |
| <b>Total Treatment of Severe Malnutrition</b>                               |      | <b>789,502</b>   | <b>950,339</b>   | <b>900,000</b>   | <b>970,800</b>   | <b>98,924</b>     |
| Support for Baby Friendly Hospital Initiative                               |      |                  |                  |                  |                  |                   |
| Total Support for Baby Friendly Hospital Initiative                         |      |                  |                  |                  |                  |                   |
| Training and monitoring   |      | 8,000            | 8,000            | 8,000            | 8,000            | 8,000             |
| Implementation of Supplementation projects (three year projects, two times) | R    |                  |                  |                  |                  |                   |
| <b>Annual Recurrent Cost Projections</b>                                    |      | <b>1,069,552</b> | <b>1,317,619</b> | <b>1,397,281</b> | <b>1,662,213</b> | <b>1,963,637</b>  |
| <b>Annual Capital Costs Projections</b>                                     |      | -                | -                | -                | -                | -                 |
| <b>Grand Total for Public Nutrition</b>                                     |      | <b>1,069,552</b> | <b>1,317,619</b> | <b>1,397,281</b> | <b>1,662,213</b> | <b>1,963,637</b>  |
|   |      |                  |                  |                  |                  | <b>12,036,067</b> |

**(d). Tuberculosis**

|  |   | Tuberculosis Control (Beyond BPHS) Costing Forecast 2004 -2010 |                  |                  |                  |                  |                  |                  |
|--|---|--|------------------|------------------|------------------|------------------|------------------|------------------|
|  |   | Year   | 2004             | 2005             | 2006             | 2007             | 2008             | 2009             |
| <b>Target population</b>                                   | Total Population                            |  | 22,626,240       | 23,060,664       | 23,503,429       | 23,954,694       | 24,414,625       | 24,883,385       |
|  | No. of New TB cases detected                |  | 40,000           | 54,000           | 60,000           | 65,000           | 68,000           | 66,000           |
|  | New detections per 100,000 population       |  | 177              | 234              | 255              | 271              | 279              | 265              |
|  | No. of health facilities diagnosing TB      |  | 263              | 341              | 400              | 450              | 500              | 550              |
|  | No. of health facilities offering DOTS      |  | 490              | 739              | 850              | 900              | 950              | 1,000            |
| <b>DOTS implementation</b>                                 | TB drugs                                    | R  | 560,000          | 756,000          | 840,000          | 910,000          | 952,000          | 924,000          |
|  | DOTS shelters for TB patients               | C  | 50,000           | 50,000           | 50,000           | 50,000           | 50,000           | 50,000           |
|  | Operation costs for DOTS shelter            | R  | 21,000           | 42,000           | 63,000           | 84,000           | 105,000          | 126,000          |
|  | <b>Total DOTS implementation</b>            |  | <b>631,000</b>   | <b>848,000</b>   | <b>953,000</b>   | <b>1,044,000</b> | <b>1,107,000</b> | <b>1,100,000</b> |
|  | Laboratory microscopy training*4            | R  | 11,850           | 11,700           | 8,850            | 7,500            | 7,500            | 7,500            |
| <b>Training for DOTS</b>                                   | Medical doctor training for DOTS*5          | R  | 16,640           | 19,920           | 8,880            | 4,000            | 4,000            | 4,000            |
|  | Health worker training for DOTS*6           | R  | 20,800           | 24,900           | 11,100           | 5,000            | 5,628            | 5,796            |
|  | Community health worker training for DOTS*7 | R  | 12,480           | 15,388           | 7,066            | 3,000            | 3,000            | 3,000            |
|  | Refresh new employee courses for DOTS*8     | R  | 80,000           | 80,000           | 80,000           | 80,000           | 80,000           | 80,000           |
|  | <b>Total Training Costs for DOTS</b>        |  | <b>141,750</b>   | <b>151,908</b>   | <b>115,896</b>   | <b>99,500</b>    | <b>100,128</b>   | <b>100,296</b>   |
| <b>Laboratory equipment</b>                                | Microscopy                                  | C  | 197,500          | 195,000          | 147,500          | 125,000          | 125,000          | 125,000          |
|  | Spear parts                                 | R  | 32,875           | 42,625           | 50,000           | 56,250           | 62,500           | 68,750           |
|  | <b>Total Laboratory equipment</b>           |  | <b>230,375</b>   | <b>237,625</b>   | <b>197,500</b>   | <b>181,250</b>   | <b>187,500</b>   | <b>193,750</b>   |
| <b>National Reference Laboratory</b>                       | Operation costs                             | R  | 50,000           | 50,000           | 50,000           | 50,000           | 50,000           | 50,000           |
|  | <b>Total National Reference Laboratory</b>  |  | <b>50,000</b>    | <b>50,000</b>    | <b>50,000</b>    | <b>50,000</b>    | <b>50,000</b>    | <b>50,000</b>    |
| <b>Regional Reference Laboratory</b>                       | Operation costs                             | R  | 50,000           | 50,000           | 75,000           | 100,000          | 125,000          | 150,000          |
|  | <b>Total Regional Reference Laboratory</b>  |  | <b>50,000</b>    | <b>50,000</b>    | <b>75,000</b>    | <b>100,000</b>   | <b>125,000</b>   | <b>150,000</b>   |
|  | Advocacy                                    | Community mobilization   | R                | 30,000           | 30,000           | 30,000           | 30,000           | 30,000           |
| <b>Total for Tuberculosis program including Cap. + Rec</b> |   |  | <b>1,133,145</b> | <b>1,367,533</b> | <b>1,421,396</b> | <b>1,504,750</b> | <b>1,599,628</b> | <b>1,624,046</b> |
| <i>Summary of TB control</i>                               |   |  | <i>2004</i>      | <i>2005</i>      | <i>2006</i>      | <i>2007</i>      | <i>2008</i>      | <i>2009</i>      |
| <b>Capital Cost total</b>                                  |   |  | 247,500          | 245,000          | 197,500          | 175,000          | 175,000          | 175,000          |
| <b>Annual Recurrent cost total</b>                         |   |  | 885,645          | 1,122,533        | 1,223,896        | 1,229,750        | 1,424,628        | 1,449,046        |
| <b>Grand Total</b>   |   |  | 1,133,145        | 1,367,533        | 1,421,396        | 1,504,750        | 1,599,628        | 1,624,046        |

| Tuberculosis Control (Beyond BPHS) Costing Forecast 2004 -2010 |   | 2011-2015          |                    |                    |                    |                    |
|--|---|--------------------|--------------------|--------------------|--------------------|--------------------|
|  | Year  | 2011               | 2012               | 2013               | 2014               | 2015               |
| <b>Target population</b>                                       | Total Population  | 25,848,080         | 26,344,363         | 26,850,175         | 27,365,599         | 27,891,120         |
|  | No. of New TB cases detected                              | 60,000             | 55,000             | 50,000             | 45,000             | 40,000             |
|  | New detections per 100,000 population                     | 232                | 209                | 186                | 164                | 143                |
|  | No. of health facilities diagnosing TB                    | 650                | 650                | 650                | 650                | 650                |
|  | No. of health facilities offering DOTS                    | 1,100              | 1,200              | 1,250              | 1,300              | 1,350              |
| <b>DOTS implementation</b>                                     | TB drugs  | R 840,000          | R 770,000          | R 700,000          | R 630,000          | R 560,000          |
|  | DOTS shelters for TB patients                             | C                  |                    |                    |                    |                    |
|  | Operation costs for DOTS shelter                          | R                  | 134,400            | 134,400            | 134,400            | 134,400            |
|  | <b>Total DOTS implementation</b>                          | <b>R 974,400</b>   | <b>R 904,400</b>   | <b>R 834,400</b>   | <b>R 764,400</b>   | <b>R 694,400</b>   |
|  | Laboratory microscopy training*4                          | R 7,500            | -                  | -                  | -                  | -                  |
| <b>Training for DOTS</b>                                       | Medical doctor training for DOTS*5                        | R 4,000            | -                  | -                  | -                  | -                  |
|  | Health worker training for DOTS*6                         | R 6,149            | 12,299             |                    |                    |                    |
|  | Community health worker training for DOTS*7               | R 3,000            | 6,000              | 6,000              | 6,000              | 6,000              |
|  | Refresh/ new employee courses for DOTS*8                  | R 80,000           | 80,000             | 80,000             | 80,000             | 80,000             |
|  | <b>Total Training Costs for DOTS</b>                      | <b>R 100,649</b>   | <b>R 98,299</b>    | <b>R 86,900</b>    | <b>R 86,900</b>    | <b>R 86,916</b>    |
| <b>Laboratory equipment</b>                                    | Microscopy  | C 322,500          | R 195,000          | R 147,500          | R 125,000          | R 125,000          |
|  | Spear parts   | R 81,250           |
|  | <b>Total Laboratory equipment</b>                         | <b>R 403,750</b>   | <b>R 276,250</b>   | <b>R 228,750</b>   | <b>R 206,250</b>   | <b>R 206,250</b>   |
|  | Operation costs   | R 50,000           |
|  | <b>Total National Reference Laboratory</b>                | <b>R 50,000</b>    |
| <b>National Reference Laboratory</b>                           | Operation costs   | R 200,000          | R 225,000          | R 225,000          | R 225,000          | R 225,000          |
|  | <b>Total National Reference Laboratory</b>                | <b>R 200,000</b>   | <b>R 225,000</b>   | <b>R 225,000</b>   | <b>R 225,000</b>   | <b>R 225,000</b>   |
|  | Community mobilization                                    | R 30,000           |
|  | <b>Advocacy</b>   |                    |                    |                    |                    |                    |
|  | <b>Total for Tuberculosis program including Cap.+ Rec</b> | <b>R 1,758,799</b> | <b>R 1,583,949</b> | <b>R 1,454,150</b> | <b>R 1,361,650</b> | <b>R 1,291,950</b> |
| <i>Summary of TB control</i>                                   |   | 2011               | 2012               | 2013               | 2014               | 2015               |
| Capital Cost total   |   | R 322,500          | R 195,000          | R 147,500          | R 125,000          | R 125,000          |
| Annual Recurrent cost total                                    |   | R 1,436,299        | R 1,388,949        | R 1,306,650        | R 1,236,650        | R 1,166,650        |
| Grand Total  |   | R 1,758,799        | R 1,583,949        | R 1,454,150        | R 1,361,650        | R 1,291,950        |

## (e). Emergency Preparedness and Response

|  |   | Emergency Response and Preparedness Costing Forecast 2004-2010 |                |                |                |                |                |                |
|--|---|--|----------------|----------------|----------------|----------------|----------------|----------------|
|  |   | Year   | 2004           | 2005           | 2006           | 2007           | 2008           | 2009           |
| Target population                                | Total Population  |  | 22,626,240     | 23,050,664     | 23,503,429     | 23,954,694     | 24,414,625     | 24,883,385     |
| Contingency for Emergency Outbreak Responses     | Drugs/Vaccines  | R  | 250,000        | 254,800        | 259,692        | 264,678        | 269,760        | 274,939        |
|  | Field operation fees  | R  | 90,000         | 91,728         | 93,489         | 95,284         | 97,114         | 98,978         |
|  | Other small scale operations  | R  | 30,000         | 30,576         | 30,001         | 30,577         | 30,002         | 30,578         |
|  | <b>Total Contingency for Emergency Outbreak Response</b>                                  |  | <b>370,000</b> | <b>387,104</b> | <b>383,182</b> | <b>390,539</b> | <b>396,876</b> | <b>404,496</b> |
| National Reference Laboratory (for confirmation) | Human resource costs  | R  | 40,920         | 40,920         | 40,920         | 40,920         | 40,920         | 40,920         |
|  | Operation costs for Reference laboratory services   | R  | 36,000         | 36,000         | 36,000         | 36,000         | 36,000         | 36,000         |
|  | Diagnostic equipment provision with spare parts   | C  | 110,000        | 10,000         | 10,000         | 10,000         | 10,000         | 127,520        |
|  | Refresh Training for MDs and Laboratory Technicians                                       | R  | 1,180          | 1,180          | 1,180          | 1,180          | 1,180          | 1,180          |
|  | <b>Total National Reference Labo</b>  |  | <b>188,100</b> | <b>88,100</b>  | <b>88,100</b>  | <b>88,100</b>  | <b>88,100</b>  | <b>205,620</b> |
| Provincial Reference Laboratories (five cities)  | Human resource cost   | R  | 33,600         | 33,600         | 33,600         | 33,600         | 33,600         | 33,600         |
|  | Operation costs for Reference laboratory services   | R  | 18,000         | 18,000         | 18,000         | 18,000         | 18,000         | 18,000         |
|  | Diagnostic equipment provision with spare parts   | C  | 13,750         | 1,250          | 1,250          | 1,250          | 1,250          | 15,940         |
|  | Refresh Training for MDs and Laboratory Technicians                                       | R  | 1,000          | 1,000          | 1,000          | 1,000          | 1,000          | 1,000          |
|  | <b>Total Regional Reference Labo</b>  |  | <b>66,350</b>  | <b>53,350</b>  | <b>53,350</b>  | <b>53,350</b>  | <b>53,350</b>  | <b>68,540</b>  |
| Community Based Emergency Preparedness Response  | Master training   |  | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         | 12,000         |
|  | Community based training  | R  | 8,640          | 8,806          | 8,975          | 9,147          | 9,323          | 9,502          |
|  | First aid kits  | R  | 15,180         | 15,471         | 15,769         | 16,071         | 16,380         | 16,694         |
|  | Materials   | R  | 7,500          | 7,644          | 7,791          | 7,940          | 8,093          | 8,248          |
|  | <b>Total Early Community Response</b>   |  | <b>31,320</b>  | <b>31,921</b>  | <b>32,524</b>  | <b>33,189</b>  | <b>33,796</b>  | <b>34,444</b>  |
| Advocacy and IEC                                 | National Advocacy   | R  | 20,000         | 20,000         | 20,000         | 20,000         | 20,000         | 20,000         |
|  | <b>Total Advocacy</b>   |  | <b>20,000</b>  | <b>20,000</b>  | <b>20,000</b>  | <b>20,000</b>  | <b>20,000</b>  | <b>20,000</b>  |
| Emergency Hospital in Kabul                      | <b>Rehabilitation Reinforcement of Building for Emergency Preparedness and mitigation</b> | C  | <b>300,000</b> |                |                |                |                |                |
|  | <b>Emergency recurrent costs</b>  |  |                | <b>552,020</b> | <b>559,725</b> | <b>566,417</b> | <b>574,398</b> | <b>581,371</b> |
|  | <b>Emergency capital costs</b>  |  |                |                | <b>423,750</b> | <b>11,250</b>  | <b>11,250</b>  | <b>11,250</b>  |
|  | <b>Grand total</b>  |  | <b>975,770</b> | <b>570,975</b> | <b>577,667</b> | <b>585,648</b> | <b>592,621</b> | <b>733,10</b>  |

Dated: 18.01.2004

| Emergency Response and Preparedness Costing Forecast 2004 -2010                                       |      | 2011-2015 Forecast |                |                |                |                | Total 2003-2015  |
|---|------|--------------------|----------------|----------------|----------------|----------------|------------------|
| Target population   | Year | 2011               | 2012           | 2013           | 2014           | 2015           |                  |
| Total Population  |      | 25,848,080         | 26,344,363     | 26,350,175     | 27,365,699     | 27,391,120     |                  |
| Drugs/Vaccines  | R    | 285,598            | 291,082        | 299,814        | 308,809        | 318,073        |                  |
| Field operation fees  | R    | 102,815            | 104,790        | 106,801        | 108,852        | 110,942        |                  |
| Other small scale operations  | R    | 30,579             | 30,004         | 30,580         | 30,005         | 30,581         |                  |
| <b>Total Contingency for Emergency Outbreak Response</b>  |      | <b>418,993</b>     | <b>425,876</b> | <b>437,196</b> | <b>447,666</b> | <b>459,596</b> | <b>4,922,624</b> |
| Human resource costs  | R    | 40,920             | 40,920         | 40,920         | 40,920         | 40,920         |                  |
| Operation costs for Reference laboratory services   | R    | 36,000             | 36,000         | 36,000         | 36,000         | 36,000         |                  |
| Diagnostic equipment provision with spare parts   | C    | 10,000             | 10,000         | 10,000         | 147,831        | 13,842         |                  |
| Refresh Training for MDs and Laboratory Technicians   | R    | 1,180              | 1,180          | 1,180          | 1,180          | 1,180          |                  |
| <b>Total National Reference Labo</b>  |      | <b>88,100</b>      | <b>88,100</b>  | <b>88,100</b>  | <b>225,931</b> | <b>91,942</b>  | <b>1,416,393</b> |
| Human resource cost   | R    | 33,600             | 33,600         | 33,600         | 33,600         | 33,600         |                  |
| Operation costs for Reference laboratory services   | R    | 18,000             | 18,000         | 18,000         | 18,000         | 18,000         |                  |
| Diagnostic equipment provision with spare parts   | C    | 1,594              | 1,594          | 1,594          | 21,422         | 2,142          |                  |
| Refresh Training for MDs and Laboratory Technicians   | R    | 1,000              | 1,000          | 1,000          | 1,000          | 1,000          |                  |
| <b>Total Regional Reference Labo</b>  |      | <b>54,194</b>      | <b>54,194</b>  | <b>54,194</b>  | <b>74,742</b>  | <b>54,742</b>  | <b>695,830</b>   |
| Master training   |      | 12,000             | 12,000         | 12,000         | 12,000         | 12,000         |                  |
| Community based training  | R    | 9,870              | 10,060         | 10,253         | 10,450         | 10,650         |                  |
| First aid kits  | R    | 17,342             | 17,674         | 18,014         | 18,360         | 18,712         |                  |
| Materials   | R    | 8,568              | 8,732          | 8,900          | 9,071          | 9,245          |                  |
| <b>Total Early Community Response</b>   |      | <b>35,780</b>      | <b>36,467</b>  | <b>37,167</b>  | <b>37,881</b>  | <b>38,608</b>  | <b>403,002</b>   |
| National Advocacy   | R    | 20,000             | 20,000         | 20,000         | 20,000         | 20,000         |                  |
| <b>Total Advocacy</b>   |      | <b>20,000</b>      | <b>20,000</b>  | <b>20,000</b>  | <b>20,000</b>  | <b>20,000</b>  | <b>220,000</b>   |
| Emergency Hospital Rehabilitation Reinforcement of Building for Emergency Preparedness and mitigation | C    |                    |                |                |                |                |                  |
| Emergency Hospital in Kabul   |      | 605,473            | 613,042        | 625,063        | 636,246        | 648,904        | 7,149,206        |
| Emergency recurrent costs   |      |                    |                |                |                |                |                  |
| Emergency capital costs   |      | 11,594             | 11,594         | 11,594         | 168,253        | 15,985         | 15,210,057       |
| <b>Grand Total</b>  |      | <b>617,067</b>     | <b>624,636</b> | <b>636,657</b> | <b>605,499</b> | <b>664,889</b> | <b>7,993,029</b> |

## (I). HIV/AIDS

| STHINVAIDS Costing Projections 2004-2010   |   |            |            |            |            |            |            |            |           |
|--|---|------------|------------|------------|------------|------------|------------|------------|-----------|
|  | Year  | 2004       | 2005       | 2006       | 2007       | 2008       | 2009       | 2010       |           |
| Target population  | Total Population<br>Young adults aged 15-25 years <sup>1</sup>                          | 27,325,340 | 27,325,340 | 27,325,340 | 27,325,340 | 27,325,340 | 27,325,340 | 27,325,340 |           |
|  | Estimated No. of Blood Transfusion<br>No. of Patients with safe blood for STHINVAIDS/CV | 4,072,723  | 4,150,919  | 4,230,017  | 4,311,045  | 4,391,073  | 4,471,677  | 4,552,325  | 4,632,975 |
| No. Of Sentinel Facility   |   | 61,840     | 63,654     | 65,544     | 68,027     | 72,653     | 76,468     | 80,305     | 84,135    |
| National Surveillance System   | R   | 250,000    | 300,000    | 410,000    | 410,000    | 410,000    | 410,000    | 410,000    | 410,000   |
| Establishing National Surveillance System  | C   | 250,000    | 300,000    | 410,000    | 410,000    | 410,000    | 410,000    | 410,000    | 410,000   |
| Equipment with spine car for safe blood transfusion                                  | R   | 247,260    | 32,320     | 12,120     | 12,120     | 12,120     | 12,120     | 12,120     | 12,120    |
| Blood bags   | R   | 1,525      | 1,525      | 1,525      | 1,525      | 1,525      | 1,525      | 1,525      | 1,525     |
| Establishing safe<br>HIV / STI test and<br>blood supply system                       | R   | 18,000     | 18,000     | 18,000     | 18,000     | 18,000     | 18,000     | 18,000     | 18,000    |
| HIV / STI test and<br>blood supply system  | R   | 43,260     | 44,558     | 46,856     | 48,153     | 50,457     | 52,756     | 55,056     | 55,356    |
| Syphilis test  | R   | 30,920     | 31,827     | 32,732     | 34,115     | 35,497     | 36,253     | 37,010     | 37,767    |
| Total Safe Stock Supply  | R   | 412,760    | 483,533    | 566,010    | 631,625    | 693,232    | 759,839    | 826,446    | 893,053   |
| Condom free distribution   | R   | 109,964    | 112,075    | 114,227    | 116,420    | 131,619    | 134,370    | 137,129    | 14,930    |
| Potential user contribution  | UC  | 12,218     | 12,453     | 12,692     | 12,930     | 14,649     | 14,930     | 15,218     | 15,498    |
| Total Condom Social Marketing  | R   | 122,182    | 124,526    | 126,819    | 129,385    | 146,449    | 149,390    | 152,716    | 155,988   |
| Total No of VCT Center   |   | 2          | 5          | 15         | 32         | 32         | 32         | 32         | 32        |
| Initial training for VCT center staff  | R   | 6,000      | 9,000      | 30,000     | 51,000     | 0          | 0          | 0          | 0         |
| VCT Center   | R   | 43,200     | 72,000     | 96,000     | 120,000    | 144,000    | 168,000    | 192,000    | 216,000   |
| Human resource cost  | R   | 36,000     | 90,000     | 95,400     | 104,560    | 104,560    | 104,560    | 104,560    | 104,560   |
| Test kit and E/C material  | R   | 88,290     | 172,956    | 228,440    | 297,280    | 362,519    | 388,549    | 414,579    | 440,609   |
| Total VCT center   |   | 400,000    | 408,000    | 416,150    | 424,483    | 432,973    | 441,632    | 450,291    | 458,950   |
| Estimated number of High Risk Group  | R   | 240,000    | 367,200    | 436,968    | 509,340    | 584,513    | 662,448    | 740,385    | 818,320   |
| EHC interventions to high risk group   | R   | 50,000     | 50,000     | 50,000     | 50,000     | 50,000     | 50,000     | 50,000     | 50,000    |
| Total BCC Interventions  | R   | 488,777    | 498,110    | 507,974    | 517,421    | 536,951    | 567,201    | 597,871    | 628,191   |
| Advocacy and IEC   | R   | -          | -          | -          | -          | -          | -          | -          | -         |
| IEC/Cafe saving skills/training against HIV/Using safe for young                     | R   | 53,877     | 545,511    | 557,874    | 567,421    | 585,951    | 644,291    | 662,821    | 680,351   |
| Total BCC Interventions  | R   | 20,000     | 20,000     | 20,000     | 20,000     | 20,000     | 20,000     | 20,000     | 20,000    |
| STD treatment  | R   | 32,400     | 37,200     | 44,400     | 51,600     | 58,800     | 66,000     | 73,200     | 80,400    |
| STHINVAIDS treatment and care<br>Priva supports by Peer groups, NGOs and communities | R   | -          | 50,000     | 50,000     | 100,000    | 100,000    | 100,000    | 100,000    | 100,000   |
| Total STHINVAIDS treatment and support   | R   | 62,400     | 107,200    | 114,400    | 171,400    | 178,800    | 186,200    | 193,600    | 200,000   |
| STHINVAIDS control program   | R   | 1,761,208  | 2,109,571  | 2,356,870  | 2,408,982  | 2,478,757  | 2,671,292  | 2,873,059  | 3,074,826 |
|  | <b>Annual Recurrent Cost Projections</b>  |            |            |            |            |            |            |            |           |
| Annual Capital Cost Projections  |   | 13,146     | 13,138     | 13,130     | 13,120     | 13,110     | 13,100     | 13,090     | 13,080    |
| Grand Total  |   | 1,761,208  | 2,109,571  | 2,356,870  | 2,408,982  | 2,478,757  | 2,671,292  | 2,873,059  | 3,074,826 |
| Potential user contribution <sup>1</sup>   |   | 12,218     | 12,453     | 12,692     | 12,930     | 14,649     | 14,930     | 15,218     | 15,498    |

| STI/HIV/AIDS Costing Forecast 2004 - 2010   |      | 2011-2015 Forecast |            |            |            |            | Dated: Jan 15, 2004 |         |
|---|------|--------------------|------------|------------|------------|------------|---------------------|---------|
|   | Year | 2011               | 2012       | 2013       | 2014       | 2015       | Total 2003-2015     |         |
| <b>Target population</b>  |      |                    |            |            |            |            |                     |         |
| Young<br>Age Group<br>(15 - 25 years) <sup>11</sup>   |      | 25,448,060         | 26,344,363 | 26,850,715 | 27,385,659 | 27,891,120 |                     |         |
| Estimated No. of Blood transfusion<br>No. of facilities available sell blood for STI/HIV/HB/HCV |      | 5,169,618          | 5,370,035  | 6,020,454  | 6,180,046  | 6,180,046  |                     |         |
| No. Of Sentinel Facility  |      | 84,672             | 89,086     | 93,720     | 98,588     | 103,575    |                     |         |
| No. Of Sentinel Facility  |      | 160                | 190        | 210        | 215        | 215        |                     |         |
| <b>National Surveillance System</b>   |      |                    |            |            |            |            |                     |         |
| Total National Surveillance System  | R    | 410,000            | 410,000    | 410,000    | 410,000    | 410,000    | 410,000             | 410,000 |
| Equipment with spare parts for safe blood transfusion   | C    | 40,400             | 44,440     | 44,240     | 24,240     | 16,160     |                     |         |
| Stock & Staff   | R    | 338,689            | 356,343    | 374,881    | 394,345    | 414,302    |                     |         |
| HIV Rapid Test  | R    | 84,672             | 89,086     | 93,720     | 98,588     | 103,575    |                     |         |
| HIV ELISA kits  | R    | 18,000             | 18,000     | 18,000     | 18,000     | 18,000     |                     |         |
| HBsAg kits  | R    | 59,271             | 62,960     | 65,604     | 68,610     | 72,635     |                     |         |
| HCV kits  | R    | 62,338             | 64,689     | 67,102     | 68,699     | 72,245     |                     |         |
| Safe Blood Supply   | R    | 131,825            | 134,566    | 136,938    | 153,522    | 156,489    |                     |         |
| Condom fee distribution   | R    | 23,263             | 23,710     | 24,165     | 27,092     | 27,612     |                     |         |
| Potential user contribution   | UC   |                    |            |            |            |            | 220,318             |         |
| Total Condom Social Marketing   |      | 155,088            | 158,066    | 161,014    | 168,814    | 184,884    | 1,782,289           |         |
| Total No of VCT/C Center  |      | 34                 | 36         | 38         | 40         | 40         |                     |         |
| Trainings for VCT/C center staff  | R    | 6,000              | 6,000      | 6,000      | 6,000      | 6,000      | 60,000              |         |
| VCT/C Center  | R    | 150,000            | 160,000    | 200,000    | 250,000    | 280,000    | 1,399,000           |         |
| Refresh training for VCT center staff   | R    | 211,200            | 220,000    | 230,400    | 240,000    | 240,000    | 1,987,200           |         |
| Human resource cost   | R    | 105,680            | 105,740    | 107,820    | 108,900    | 108,900    | 1,177,740           |         |
| Test kit and EC material  | R    | 472,866            | 517,740    | 584,220    | 612,860    | 646,990    | 4,483,940           |         |
| Total VCT center  |      | 459,474            | 486,664    | 478,037    | 487,598    | 497,750    |                     |         |
| Estimated number of High Risk Group   |      |                    |            |            |            |            |                     |         |
| STCC interventions for high risk groups   | R    | 1,033,617          | 1,054,493  | 1,075,563  | 1,097,005  | 1,119,037  | 8,856,233           |         |
| Total STCC Interventions  |      | 1,033,817          | 1,054,493  | 1,075,583  | 1,097,085  | 1,119,337  | 8,853,107           |         |
| National Advocacy   | R    | 50,000             | 50,000     | 50,000     | 50,000     | 50,000     | 50,000              |         |
| Advocacy and EC   | R    | 620,354            | 632,265    | 644,404    | 722,454    | 736,236    | 7,159,555           |         |
| Total STCC Interventions  |      | 670,354            | 682,265    | 694,404    | 772,444    | 796,236    | 7,270,828           |         |
| STD treatment   | R    | 20,000             | 20,000     | 20,000     | 20,000     | 20,000     | 240,000             |         |
| STI/HIV/AIDS treatment and care   | R    | 86,400             | 87,600     | 94,800     | 102,000    | 109,200    | 837,600             |         |
| PWAs support by Peer group, NGOs and communities  | R    | 200,000            | 200,000    | 250,000    | 250,000    | 250,000    | 1,750,000           |         |
| Total STI/HIV/AIDS treatment and care support   |      | 306,400            | 367,600    | 384,800    | 372,000    | 379,200    | 2,877,600           |         |
| STI/HIV/AIDS control program  |      | 3,684,158          | 3,867,807  | 3,959,616  | 4,167,548  | 4,274,975  | 60,151,640          |         |
| Annual Recurrent Cost Projections   |      | 3,641,758          | 3,792,457  | 3,934,778  | 4,143,308  | 4,258,115  | 36,911,422          |         |
| Annual Capital Cost Projections   |      | 46,000             | 44,440     | 24,240     | 24,240     | 16,160     | 276,480             |         |
| Grand total   |      | 3,684,158          | 3,867,807  | 3,959,616  | 4,167,548  | 4,274,975  | 37,142,102          |         |
| Potential user contribution   |      | 23,263             | 23,710     | 24,165     | 27,092     | 27,612     | 256,676             |         |

### 3. Improving Quality of Hospital Services

#### Total Secondary and Tertiary Hospital beds in Afghanistan 2004-2015

|   | 2004/1383 | 2005/1384 | 2006/1385 | 2010/1389 | 2015/1394 |
|---|-----------|-----------|-----------|-----------|-----------|
| Total Provincial Hospital beds operational in the Provinces   | 1700      | 1700      | 1900      | 2500      | 2700      |
| Total Regional Hospital beds operational in the Provinces     | 1600      | 1600      | 1600      | 1600      | 1600      |
| Total Provincial Hospital beds operational in Kabul           | 1400      | 1400      | 1400      | 1400      | 1400      |
| Total Regional Hospital beds operational in Kabul             | 1200      | 1200      | 1200      | 1200      | 1200      |
| Total Tertiary Hospital beds operational in Kabul             | 400       | 400       | 400       | 400       | 400       |
| Cost per Provincial Hospital type bed per year (rehab)        | \$4,281   |           |           |           |           |
| Cost per Provincial Hospital type bed per year (construction) | \$5,739   |           |           |           |           |
| Cost per Regional Hospital type bed per year                  | \$3,918   |           |           |           |           |
| Cost Tertiary Hospital bed per year                           | \$5,519   |           |           |           |           |

Costs involved in the Construction and Equipping Health Clinics and Provincial and District Hospitals

| Facility Type                            | Construction        |                     |                     |                     |                    |                    |                    |                     |                     |                     |
|--|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
|  | Year 1<br>2004      | Year 2<br>2005      | Year 3<br>2006      | Year 8<br>2011      | Year 9<br>2012     | Year 10<br>2013    | Year 11<br>2014    | Year 12<br>2015     | Year 12<br>2015     | Year 12<br>2015     |
| CHC                                      | 50                  | 50                  | 25                  | 25                  | 25                 | 25                 | 25                 | 25                  | 0                   | 0                   |
| BHC                                      | 100                 | 100                 | 75                  | 50                  | 50                 | 50                 | 50                 | 50                  | 0                   | 0                   |
| District Hospital                        |                     |                     | 5                   | 5                   | 5                  |                    |                    |                     | 0                   | 0                   |
| Provincial Hospital                      |                     |                     | 2                   |                     |                    |                    |                    |                     | 0                   | 0                   |
| <b>Subtotal</b>                          | <b>\$17,250,000</b> | <b>\$17,250,000</b> | <b>\$10,875,000</b> | <b>\$8,625,000</b>  | <b>\$8,625,000</b> | <b>\$8,625,000</b> | <b>\$8,625,000</b> | <b>0</b>            |                     |                     |
| <b>Subtotal cost CHC</b>                 |                     |                     | <b>\$20,625,000</b> | <b>\$4,125,000</b>  | <b>\$4,125,000</b> | <b>\$4,125,000</b> | <b>\$4,125,000</b> | <b>\$16,500,000</b> |                     |                     |
| <b>Subtotal cost BHC</b>                 |                     |                     | <b>\$24,750,000</b> | <b>\$4,500,000</b>  | <b>\$4,500,000</b> | <b>\$4,500,000</b> | <b>\$4,500,000</b> | <b>\$18,000,000</b> |                     |                     |
| <b>Subtotal cost District Hospital</b>   |                     |                     | <b>\$5,750,000</b>  |                     |                    |                    |                    |                     | <b>\$11,500,000</b> |                     |
| <b>Subtotal cost Provincial Hospital</b> |                     |                     | <b>\$3,433,710</b>  |                     |                    |                    |                    |                     |                     |                     |
| <b>Total cost health facility</b>        |                     |                     |                     | <b>\$54,558,710</b> |                    |                    |                    |                     |                     | <b>\$46,000,000</b> |

**Example of the costing for a Regional**

*Regional Hospital Costing (200 beds)*

| Item   | Qty        | Unit Cost (\$)  | Months | Total Cost (\$)    | Capital Cost yr (\$) | Recurrent Cost yr (\$) |
|--|------------|-----------------|--------|--------------------|----------------------|------------------------|
| <b>Staff</b>   |            |                 |        |                    |                      |                        |
| Hospital Director                                      | 1          | \$300           | 12     | \$3,600            |                      | \$3,600                |
| Hospital Administrator                                 | 1          | \$150           | 12     | \$1,800            |                      | \$1,800                |
| (m) Head Nurse   | 1          | \$120           | 12     | \$1,440            |                      | \$1,440                |
| (m) General Surgeon                                    | 2          | \$500           | 12     | \$6,000            |                      | \$6,000                |
| (f) General Surgeon                                    | 1          | \$500           | 12     | \$6,000            |                      | \$6,000                |
| Orthopedic Surgeon                                     | 1          | \$400           | 12     | \$4,800            |                      | \$4,800                |
| Neuro Surgeon  | 1          | \$400           | 12     | \$4,800            |                      | \$4,800                |
| Ophthalmologist  | 1          | \$400           | 12     | \$4,800            |                      | \$4,800                |
| (m) General Doctor                                     | 18         | \$170           | 12     | \$35,720           |                      | \$35,720               |
| (f) General Doctor                                     | 10         | \$170           | 12     | \$22,400           |                      | \$22,400               |
| Internal Medicine Specialist                           | 2          | \$200           | 12     | \$4,800            |                      | \$4,800                |
| Pediatrician   | 1          | \$200           | 12     | \$2,400            |                      | \$2,400                |
| Psychiatrist   | 1          | \$200           | 12     | \$2,400            |                      | \$2,400                |
| Nutritionist   | 2          | \$145           | 12     | \$3,480            |                      | \$3,480                |
| Hospital Hygienist                                     | 2          | \$135           | 12     | \$3,240            |                      | \$3,240                |
| Nurse  | 85         | \$120           | 12     | \$93,600           |                      | \$93,600               |
| Nurse-midwife  | 19         | \$140           | 12     | \$31,920           |                      | \$31,920               |
| Anesthetist  | 1          | \$200           | 12     | \$2,400            |                      | \$2,400                |
| Anesthesia Assistant                                   | 6          | \$120           | 12     | \$8,640            |                      | \$8,640                |
| Pharmacist   | 3          | \$145           | 12     | \$5,220            |                      | \$5,220                |
| Pharmacist   | 1          | \$150           | 12     | \$1,800            |                      | \$1,800                |
| Pharmacy assistant                                     | 5          | \$125           | 12     | \$7,500            |                      | \$7,500                |
| X-ray technician                                       | 4          | \$150           | 12     | \$7,200            |                      | \$7,200                |
| Laboratory technician                                  | 6          | \$110           | 12     | \$7,200            |                      | \$7,200                |
| EPI vacuator   | 6          | \$90            | 12     | \$5,760            |                      | \$5,760                |
| Clerk  | 4          | \$100           | 12     | \$4,800            |                      | \$4,800                |
| cleaner  | 12         | \$60            | 12     | \$8640             |                      | \$8640                 |
| guard  | 6          | \$55            | 12     | \$3,960            |                      | \$3,960                |
| cock   | 2          | \$65            | 12     | \$1,560            |                      | \$1,560                |
| laundry man or woman                                   | 4          | \$60            | 12     | \$2,880            |                      | \$2,880                |
| driver   | 3          | \$90            | 12     | \$3,240            |                      | \$3,240                |
| <b>Total Staff</b>                                     | <b>102</b> |                 |        |                    |                      |                        |
| <b>Total Medical Staff</b>                             | <b>169</b> |                 |        |                    |                      |                        |
| <b>Total Support Staff</b>                             | <b>27</b>  |                 |        |                    |                      |                        |
| <b>Total Administrative Staff</b>                      | <b>5</b>   |                 |        |                    |                      |                        |
| <b>Drugs and Medical Supplies</b>                      |            |                 |        |                    |                      |                        |
| Supply of Drugs and Medical Supplies                   | 1          | \$12,000        | 12     | \$144,000          |                      | \$144,000              |
| <b>Medical Equipment</b>                               |            |                 |        |                    |                      |                        |
| X-ray machine  | 1          | \$60,000        | 1      | \$60,000           | \$10,917.75          |                        |
| Portable Ultrasound Machines                           | 1          | \$7,500         | 1      | \$7,500            | \$1,638              |                        |
| Water Table  | 3          | \$3,000         | 1      | \$9,000            | \$1,596              |                        |
| Theater Lamp   | 3          | \$500           | 1      | \$1,500            | \$320                |                        |
| Steamsterilizer  | 2          | \$1,000         | 1      | \$2,000            | \$437                |                        |
| Oxygenator   | 3          | \$3,500         | 1      | \$10,500           | \$2,293              |                        |
| Suction machine electrical                             | 3          | \$250           | 1      | \$750              | \$164                |                        |
| Generator  | 2          | \$10,000        | 1      | \$20,000           | \$4,367              |                        |
| Van Hemel Neonatal Incubator                           | 4          | \$400           | 1      | \$1,600            | \$349                |                        |
| Delivery Room Beds                                     | 6          | \$2,000         | 1      | \$12,000           | \$2,620              |                        |
| Orthopedic Bed   | 10         | \$600           | 1      | \$6,000            | \$1,092              |                        |
| Hospital beds  | 190        | \$150           | 1      | \$28,500           | \$6,223              |                        |
| Bed side lockers                                       | 200        | \$60            | 1      | \$10,000           | \$2,194              |                        |
| Laboratory equipment                                   | 1          | \$40,000        | 1      | \$40,000           | \$8,734              |                        |
| Miscellaneous medical equipment                        | 1          | \$10,000        | 1      | \$10,000           | \$2,184              |                        |
| <b>Furniture and office equipment</b>                  |            |                 |        |                    |                      |                        |
| Solar Panels etc                                       | 2          | \$6,000         | 1      | \$12,000           | \$2,184              |                        |
| Desktop computer and accessories                       | 1          | \$1,000         | 1      | \$1,000            | \$522.60             |                        |
| Office furniture                                       | 1          | \$1,500         | 1      | \$1,500            | \$327.53             |                        |
| Hospital furniture (local produce)                     | 1          | \$4,000         | 1      | \$4,000            | \$2,090.41           |                        |
| <b>Other Recurrent</b>                                 |            |                 |        |                    |                      |                        |
| Cleaning material                                      | 1          | \$300           | 12     | \$3,600            | \$3,600              |                        |
| Office expenditure                                     | 1          | \$100           | 12     | \$1,200            | \$1,200              |                        |
| food for patients and staff                            | 1          | \$6,100         | 12     | \$73,200           | \$73,200             |                        |
| fuel and maintenance generator                         | 1          | \$1,067         | 12     | \$12,804           | \$12,804             |                        |
| small maintenance                                      | 1          | \$250           | 12     | \$3,000            | \$3,000              |                        |
| fuel for kitchen and heating                           | 1          | \$1,830         | 12     | \$21,960           | \$21,960             |                        |
| <b>Capital</b>   |            |                 |        |                    |                      |                        |
| Ambulance  | 2          | \$30,000        |        | \$60,000           | \$13,101             |                        |
| Rehabilitation   | 1          | \$500,000       |        | \$500,000          | \$33,608             |                        |
| <b>Subtotals without contingency</b>                   |            |                 |        | <b>\$1,351,094</b> | <b>197,327</b>       | <b>\$166,244</b>       |
| <b>Contingency</b>                                     |            | Add contingency |        | <b>\$1,418,649</b> | <b>\$102,194</b>     | <b>\$584,556</b>       |
| <b>Subtotal for the first year including rehab.</b>    |            |                 |        |                    |                      |                        |
| <b>Subtotal capital cost after the first year</b>      |            |                 |        |                    |                      |                        |
| <b>Subtotal recurrent cost after the first year</b>    |            |                 |        |                    |                      |                        |
| <b>Subtotal operating cost after the first year</b>    |            |                 |        |                    |                      |                        |
| <b>Income</b>  |            |                 |        |                    |                      |                        |
| Income (10% of recurrent budget)                       |            |                 |        |                    |                      | \$17,837               |
| <b>Grand total operating cost after the first year</b> |            |                 |        | <b>\$679,913</b>   |                      |                        |
| <b>Cost per bed per year after the first year</b>      |            |                 |        | <b>\$3,395</b>     |                      |                        |

#### 4. Human Resource Development

| <b>Staff Kabul IHS</b>                 | <b>QTY</b> | <b>Unit Cost/month</b> | <b>months</b> | <b>cost/year</b>     |                            |
|--|------------|------------------------|---------------|----------------------|----------------------------|
| Mamor (simple staff)                   | 10         | \$300                  | 12            | \$36,000             |                            |
| Faculty                                | 40         | \$500                  | 12            | \$240,000            |                            |
| Worker                                 | 20         | \$130                  | 12            | \$31,200             |                            |
| <b>Total</b>                           | <b>70</b>  |                        |               | <b>\$307,200</b>     |                            |
| <b>Staff Provincial IHS</b>            |            |                        |               |                      |                            |
| Mamor (simple staff)                   | 5          | \$300                  | 12            | \$18,000             |                            |
| Faculty                                | 20         | \$500                  | 12            | \$120,000            |                            |
| Worker                                 | 10         | \$130                  | 12            | \$15,600             |                            |
| <b>Total for one provincial IHS</b>    | <b>35</b>  |                        |               | <b>\$153,600</b>     |                            |
| <b>Total for eight provincial IHSs</b> |            |                        |               | <b>\$1,228,800</b>   |                            |
| <b>Recurrent cost Kabul</b>            |            |                        |               |                      |                            |
| Maintenance                            | 1          | \$300                  | 12            | \$3,600              |                            |
| Electricity/heating                    | 1          | \$1,000                | 12            | \$12,000             |                            |
| Communication                          | 1          | \$500                  | 12            | \$6,000              |                            |
| Transport                              | 1          | \$4,000                | 12            | \$48,000             |                            |
| Accommodation long courses             | 360        | \$250                  | 12            | \$1,080,000          |                            |
| Accommodation short courses            | 600        | \$100                  | 12            | \$720,000            |                            |
| Teaching materials                     | 960        | \$10                   | 12            | \$115,200            |                            |
| <b>Total</b>                           |            |                        |               | <b>\$1,984,800</b>   |                            |
| <b>Recurrent cost Provincial IHS</b>   |            |                        |               |                      |                            |
| Maintenance                            | 1          | \$150                  | 12            | \$1,800              |                            |
| Electricity/heating                    | 1          | \$500                  | 12            | \$6,000              |                            |
| Fuel and maintenance                   | 1          | \$500                  | 12            | \$6,000              |                            |
| Communication                          | 1          | \$600                  | 12            | \$7,200              |                            |
| Transport                              | 1          | \$2,000                | 12            | \$24,000             |                            |
| Accommodation long courses             | 180        | \$250                  | 12            | \$540,000            |                            |
| Accommodation short courses            | 300        | \$100                  | 12            | \$360,000            |                            |
| Teaching materials                     | 480        | \$10                   | 12            | \$57,600             |                            |
| <b>Total for one provincial IHS</b>    |            |                        |               | <b>\$945,000</b>     |                            |
| <b>Total for eight provincial IHSs</b> |            |                        |               | <b>\$7,560,000</b>   |                            |
| <b>Capital cost Kabul IHS</b>          | <b>QTY</b> | <b>Unit Cost</b>       | <b>months</b> | <b>cost 1st year</b> | <b>Cost after 1st year</b> |
| Computers and accessories              | 20         | \$1,000                | 1             | \$20,000             | \$10,452                   |
| Furniture                              | 600        | \$200                  | 1             | \$120,000            | \$26,203                   |
| Library                                | 1          | \$10,000               | 1             | \$10,000             | \$1,000                    |
| <b>Total</b>                           |            |                        |               | <b>\$150,000</b>     | <b>\$37,655</b>            |
| <b>Capital cost Provincial IHS</b>     | <b>QTY</b> | <b>Unit Cost</b>       | <b>months</b> | <b>cost 1st year</b> | <b>Cost after 1st year</b> |
| Computers and accessories              | 10         | \$1,000                | 1             | \$10,000             | \$5,226                    |
| Furniture                              | 300        | \$200                  | 1             | \$60,000             | \$13,101                   |
| Library                                | 1          | \$5,000                | 1             | \$5,000              | \$500                      |
| Internet connection                    | 1          | \$8,000                | 1             | \$8,000              | \$1,747                    |
| Solar panels for computers             | 5          | \$2,000                | 1             | \$10,000             | \$2,184                    |
| Generator                              | 1          | \$10,000               | 1             | \$10,000             | \$5,226                    |
| <b>Total for one provincial IHS</b>    |            |                        |               | <b>\$75,000</b>      | <b>\$27,984</b>            |
| <b>Total for eight provincial IHSs</b> |            |                        |               | <b>\$600,000</b>     | <b>\$223,870</b>           |

## 5. Administrative Reform and Capacity Building

| Total Number of Professional Staff put on PRR and 'Super Scale' Allowance for the Provincial Health Department |     |               |                   |   |
|--|-----|---------------|-------------------|---|
| Post   | Qty | Pay per month | Total (Afs/month) | Type of Scale   |
| Director of the Provincial Health Liaison Office   | 1   | 29,760        | 29,760            | Superscale Level 1 Step 4   |
| Chief Provincial Advisor   | 1   | 26,160        | 26,160            | Superscale Level 1 Step 1   |
| Senior Provincial Advisor  | 4   | 23,760        | 95,040            | Superscale Level 2 Step 3   |
| Administrator of the Provincial Health Liaison Office  | 1   | 8,225         | 8,225             | Interim Additional Allowance Scheme Level C Step 1                              |
| Admin Officer of the Provincial Health Liaison Office  | 1   | 6,815         | 6,815             | Interim Additional Allowance Scheme Level D Step 1                              |
| Clerk of the Provincial Health Liaison Office  | 1   | 6,815         | 6,815             | Interim Additional Allowance Scheme Level D Step 1                              |
| Provincial Health Director   | 32  | 22,560        | 721,920           | Superscale Level 2 Step 2   |
| Administrator of the Provincial Health Office  | 32  | 8,225         | 263,200           | Interim Additional Allowance Scheme Level C Step 1                              |
| Provincial RH and SMI Officer  | 32  | 21,360        | 683,520           | Superscale Level 2 Step   |
| Provincial Health Officer  | 192 | 11,045        | 2,120,640         | Interim Additional Allowance Scheme Level A Step 1                              |
| <b>Totals</b>  |     | <b>297</b>    | <b>3,902,695</b>  |   |
| <i>Average Pay per staff member per month</i>  |     |               |                   | <b>13,340</b>   |
| Total number of Support Staff in new organogram  |     |               |                   | <b>U</b>  |
| Ratio Professional to Support Staff  |     |               |                   | <b>0.92</b>   |
|  |     |               |                   | <i>Interim Additional Allowance Scheme Level U<sup>a</sup><br/>(grades 4-6)</i> |

### Interim Additional Allowance Scale

Salary in Afghanis (1US\$ = 48 Afs)

| Post level | Steps                                      |        |        |        |
|------------|--|--------|--------|--------|
|            | 1  | 2      | 3      | 4      |
| A          | 11,045                                     | 11,280 | 11,515 | 11,750 |
| B          | 9,635                                      | 9,836  | 10,037 | 10,240 |
| C          | 8,225                                      | 8,460  | 8,695  | 8,930  |
| D          | 6,815                                      | 7,050  | 7,285  | 7,520  |
| E          | 5,405                                      | 5,640  | 5,875  | 6,110  |
| F          | 3,995                                      | 4,230  | 4,465  | 4,700  |
| U          | Unchange ( Existing salary and allowances) |        |        |        |

### Super Scale Allowance

| Post Level | Steps  |        |        |        |
|------------|--------|--------|--------|--------|
|            | 1      | 2      | 3      | 4      |
| 1          | 26,160 | 27,360 | 28,560 | 29,760 |
| 2          | 21,360 | 22,560 | 23,760 | 24,960 |
| 3          | 16,560 | 17,760 | 18,960 | 20,160 |
| 4          | 11,760 | 12,960 | 14,160 | 15,360 |

*Technical assistance needs, per year*

| Office/Function                        | CURRENT                |            |             |                |            |             |
|--|------------------------|------------|-------------|----------------|------------|-------------|
|  | International Advisors |            |             | Local Advisors |            |             |
|  | Current FT             | Current PT | Current FTE | Current FT     | Current PT | Current FTE |
| <i>Policy &amp; Planning</i>           |                        |            |             |                |            |             |
| GCMU                                   | 3                      | 0          | 3           |                |            | Unknown     |
| GD P&P                                 | 1                      | 0          | 1           |                |            |             |
| Health Financing                       | 1                      | 0.5        | 1.5         |                |            |             |
| HMS                                    | 1                      | 0.5        | 1.5         |                |            |             |
| External Coordination                  | 0                      | 0          | 0           |                |            |             |
| Human Resources                        | 1                      | 0.5        | 1.5         |                |            |             |
| Human Resources Development            | 0                      | 0          | 0           |                |            |             |
| <i>Health Care &amp; Promotion</i>     |                        |            |             |                |            |             |
| Nutrition                              | 2                      |            | 2           |                |            |             |
| Safe Motherhood                        | 1                      |            | 1           |                |            |             |
| EPI                                    | 1                      |            | 1           |                |            |             |
| NTP                                    | 3                      |            | 3           |                |            |             |
| Malalai Hospital                       | 2                      |            | 2           |                |            |             |
| IEC                                    | 2                      |            | 2           |                |            |             |
| Malaria                                | 1                      |            | 1           |                |            |             |
| IMCI                                   | 1                      |            | 1           |                |            |             |
| Essential drugs                        |                        | 0.5        | 0.5         |                |            |             |
| Drug Quality Assurance                 | 0                      | 0          | 0           |                |            |             |
| Emergency preparedness                 | 1                      |            | 1           |                |            |             |
| Blood bank                             | 2                      |            | 2           |                |            |             |
| Hospital Management                    |                        | 0.5        | 0.5         |                |            |             |
| HIV/AIDS                               | 1                      |            | 1           |                |            |             |
| TB                                     |                        |            |             |                |            |             |
| <i>Management &amp; Administration</i> |                        |            |             |                |            |             |
| Construction                           | 1                      |            | 1           |                |            |             |
| Management                             | 1                      |            | 1           |                |            |             |
| Central Workshop                       | 1                      |            | 1           |                |            |             |
| Financial Management                   | 0.5                    |            | 0.5         |                |            |             |
| <i>Provincial Health</i>               |                        |            |             |                |            |             |
| GD Provincial Health                   | 1                      |            | 1           |                |            |             |
| <i>Additional areas</i>                |                        |            |             |                |            |             |
| Mental Health                          | 0                      |            | 0           |                |            |             |
| Environmental Health                   | 0                      |            | 0           |                |            |             |
| Global Fund                            |                        |            | 0           |                |            |             |
| Forensic Medicine                      |                        |            | 0           |                |            |             |
| Disability                             |                        |            | 0           |                |            |             |

**Technical assistance needs, per year**

| Office/Function                        | PROJECTED |       | ESTIMATED COSTS |           |            |
|--|-----------|-------|-----------------|-----------|------------|
|  | INT       | LOCAL | INT             | LOCAL     | TOTAL      |
| <b>Policy &amp; Planning</b>           |           |       |                 |           |            |
| GCMU                                   | 3         | 4     | 900,000         | 48,000    | 996,000    |
| GD P&P                                 | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Health Financing                       | 2         | 2     | 600,000         | 48,000    | 648,000    |
| HMIS                                   | 2         | 2     | 600,000         | 48,000    | 648,000    |
| External Coordination                  | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Human Resources                        | 2         | 2     | 600,000         | 48,000    | 648,000    |
| Human Resources Development            | 1         | 2     | 300,000         | 48,000    | 348,000    |
| <b>Health Care &amp; Promotion</b>     |           |       |                 |           |            |
| Nutrition                              | 2         | 2     | 600,000         | 48,000    | 648,000    |
| Safe Motherhood                        | 1         | 2     | 300,000         | 48,000    | 348,000    |
| EPI                                    | 1         | 2     | 300,000         | 48,000    | 348,000    |
| NTP                                    | 3         | 4     | 900,000         | 96,000    | 996,000    |
| Malalai Hospital                       | 2         | 3     | 600,000         | 72,000    | 672,000    |
| IEC                                    | 2         | 3     | 600,000         | 72,000    | 672,000    |
| Malaria                                | 1         | 2     | 300,000         | 48,000    | 348,000    |
| IMCI                                   | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Essential drugs                        | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Drug Quality Assurance                 | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Emergency preparedness                 | 1         | 0     | 300,000         | -         | 300,000    |
| Blood bank                             | 2         | 2     | 600,000         | 48,000    | 648,000    |
| Hospital Management                    | 1         | 2     | 300,000         | 48,000    | 348,000    |
| HIV/AIDS                               | 1         | 2     | 300,000         | 48,000    | 348,000    |
| TB                                     | 2         | 2     | 600,000         | 48,000    | 648,000    |
| <b>Management &amp; Administration</b> |           |       |                 |           |            |
| Construction                           | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Management                             | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Central Workshop                       | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Financial Management                   | 1         | 2     | 300,000         | 48,000    | 348,000    |
| <b>Provincial Health</b>               |           |       |                 |           |            |
| GD Provincial Health                   | 1         | 2     | 300,000         | 48,000    | 348,000    |
| <b>Additional areas</b>                |           |       |                 |           |            |
| Mental Health                          | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Environmental Health                   | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Global Fund                            | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Forensic Medicine                      | 1         | 2     | 300,000         | 48,000    | 348,000    |
| Disability                             | 1         | 2     | 300,000         | 48,000    | 348,000    |
|  | 44        | 68    | 13,200,000      | 1,632,000 | 14,832,000 |

**Estimating annual technical assistance needs**  
 Draft of 20 December 2003

| Categories   | Number | Average Unit Cost | Total               | Notes & assumptions   |
|--|--------|-------------------|---------------------|---|
| Human resources/personnel (advisors) for MOH         | NA     |                   | 14,832,000          | see "MOH advisors" sheet  |
| In-country training, workshops, and meetings for MOH |        |                   |                     |   |
| Workshops  | 88     | \$5,000           | \$440,000           | 2 workshops per int'l advisor per year                                      |
| Training events                                      | 88     | \$3,000           | \$264,000           | 2 training events per int'l advisor per year                                |
| Total  |        |                   | \$704,000           |   |
| Overseas conferences, meetings, and training for MOH |        |                   |                     |   |
| Overseas conferences/meetings                        | 96     | \$5,350           | \$513,600           | 8 overseas meetings per month   |
| Overseas training                                    | 24     | \$10,000          | \$240,000           | 2 overseas trainings per month  |
| Total  |        |                   | \$753,600           |   |
| Equipment and capital expenses for MOH               |        |                   |                     |   |
| Vehicles   | 88     | \$10,000          | \$88,000            | one vehicle per 5 int'l advisors, annual cost, assuming 5 yr depreciation   |
| Computers & IT equipment                             | 112    | \$3,000           | \$336,000           | one computer per advisor (int'l/local), + \$100 per year Internet, other IT |
| Total  |        |                   | \$424,000           |   |
| NGO technical assistance costs per year              |        |                   | 12,000,000          | see "NGO TA costs" sheet  |
| <b>TOTAL</b>   |        |                   | <b>\$18,713,600</b> |   |

Annex 4 List of Ongoing and Ready Projects

|    | <i>Sub program*1</i> | <i>Project Names</i>   | <i>Status*2</i> | <i>Government DAD project No.</i> | <i>Main Donors</i>                          | <i>Implementing Partners</i>      | <i>1382 Com. In M. US\$</i>               | <i>1383 Req. In M.US\$</i>             |
|----|----------------------|--|-----------------|-----------------------------------|---|-----------------------------------|---|--|
| 1  | BPHS                 | Afghanistan Health Sector Emergency Reconstruction and Development Project | O               | AFG/03421 and AFG/03600           | WB  | COOPI, CHA, IbnSina, BRAC         | 59.6MUSS grant for three years            |  |
| 2  | BPHS                 |  | O               | AFG/03421 and AFG/03600           | EC  | SCA, IbnSina, AHDS, ACF, AMI, HNI | 25MEuro was earmarked                     |  |
| 3  | BPHS                 | Rural Expansion of Afghanistan Community-Based Health Care (Reach)         | O               | AFG/03421 and AFG/03600           | USAID                                       | AKDN, IMC, BDF, CHA               | 100MUSS contract for three years          |  |
| 4  | BPHS                 | Primary health care partnership for the poor                               | O               | AFG/03421 and AFG/03600           | ADB   | IbnSina NGO trustee               | 3MUSS grant for 30 months                 |  |
| 5  | BPHS                 | Basic Health Services for Badghis  | O               | AFG/03908                         | KfW   | Maltezer                          | 3MEuro for three years                    |  |
| 6  | BPHS                 | Rehabilitation of Economic Facilities and Service program                  | O               | N.A.                              | USAID                                       |                                   | *Construction started in 6 provinces      | *About 400 clinics will be constructed |
| 7  | BPHS                 | Equipment provision to BPHS facilities                                     | P               | N.A.                              | JPN, WB                                     |                                   |   |  |
| 8  | SHP                  | Expanded Programme on Immunization   | O               | AFG/03421                         | CAN, CDCP, DNK, FIN, IDRC, JPN, USA, USAIDJ | UNICEF, SCF/US                    | 19.623                                    | 20.3                                   |
| 9  | SHP                  | Emergency Nutrition  | O               | AFG/03442                         | JPN, UK-DIFID, UNICEF                       | UNICEF                            | 2.194                                     | 6.5                                    |
| 10 | SHP                  | Caring Practice  | O               | AFG/03443                         | CAN, IDRC, JPN, NLD, UNICEF                 | UNICEF                            | 0.429                                     | 3.7                                    |
| 11 | SHP                  | Micronutrients   | O               | AFG/03444                         | CAN, IDRC, JPN, NLD, UNICEF                 | UNICEF                            | 1.978                                     | 7.0                                    |
| 12 | SHP                  | Building Afghanistan's capacity to address AIDS, TB and malaria            | P               | N.A.                              | Global fund to fight AIDS, TB and Malaria   |                                   | 3,125,605US\$ for two years were approved |  |
| 13 | SHP                  | Emergency Preparedness and Response  | O               | AFG/03835                         | WHO   | WHO                               | 0.306                                     |  |

|    | <i>Sub program*1</i> | <i>Project Names</i>              | <i>Status*2</i> | <i>Government DAD project No.</i> | <i>Main Donors</i>                     | <i>Implementing Partners</i> | <i>1382 Com. In M. US\$</i> | <i>1383 Req. In M.US\$</i> |
|----|----------------------|-----------------------------------|-----------------|-----------------------------------|--|------------------------------|-----------------------------|----------------------------|
| 14 | STH                  | Hospital Rehabilitation           | O               | AFG/03470                         | CAN, GER, JPN, UNICEF                  | UNICEF                       | 1.972                       | 7.33                       |
| 15 | STH                  | Hospital Construction             | O               | AFG/03468                         | ITA, USAID                             | UNOPS                        | 11.531                      | 21.9                       |
| 16 | STH                  | Equipment provision               | O               | AFG/03471                         | AUS, AUT, GER, JPN, USA                | UNFPA, UNICEF                | 2.730                       | 5.63                       |
| 17 | HRD                  | Pre-Service training              | O               | AFG/03476                         | BEL, JPN, USAID                        | UNICEF                       | 9.667                       | 12.40                      |
| 18 | HRD                  | Refresh/In-service training       | O               | AFG/03478                         | AUS, BEL, CAN, GER, JPN, UNICEF, USAID | UNICEF                       | 5.340                       | 3.0                        |
| 19 | HRD                  | Abroad training                   | O               | AFG/03486                         | EC, UK- DFID, WB                       |                              | 0.509                       | 2.60                       |
| 20 | HRD                  | Midwife training                  | P               |                                   | USAID                                  |                              |                             |                            |
| 21 | ARCB                 | Priority Reform and Restructuring | P               | N.A.                              |  |                              |                             |                            |

\*1: BPHS: Basic Package of Health Services, SHP: Special Health Program, STH: Secondary Tertiary Hospital care, HRD: Human Resource Development, ARCB: Administrative Reform and Capacity Building  
 \*2: O: On going, P: Planned

## ***Annex 5 Technical Assistance Needs***

### ***Background and progress to date***

After more than two decades of war, isolation, drain of human capital, and a resulting minimal resource base, technical and managerial weaknesses pose a serious constraint to Afghanistan's attempts to achieve its health goals. Therefore, in addition to funding for service delivery, complementary support is needed for the improvement of technical and managerial capacity.

The Afghanistan Interim Health Strategy (February 2003) defines capacity building as the development of organizational, managerial, and technical abilities, attitudes, relationships, and values that enable individual staff; groups such as departments, teams, and committees; and the Ministry as a whole to become more effective and efficient.

Towards this end, the Transitional Islamic State of Afghanistan with the support of its development partners has made progress in such areas as developing an Interim National Health Policy, conducting a National Health Resources Assessment, restructuring the MoH, developing the Basic Package of Health Services, creating technical task forces, convening a Consultative Group for Health and Nutrition, and writing Terms of Reference for Provincial Health Coordination Committees (PCC's).

This has been achieved through a variety of activities, including in-country seminars and workshops; overseas conferences, meetings, and training courses; on-the-job mentoring, coaching, and advising; and, material and financial support. A major input has been provided through international and Afghan expatriate advisors, short- and long-term, supported by the multilateral and bilateral donors. While much has been achieved, the remaining needs are significant, especially at the provincial levels, and in analyzing and harmonizing the different models of funding and support which have been introduced.

In addition to technical assistance to the MoH, Afghan NGOs, which will assume an increasing role in the delivery of health services in the future, have also benefited from similar types of technical assistance.

### ***Summary of current technical assistance needs and challenges***

#### ***Goals of institutional development***

The stated MoH goals for institutional development are to ensure clarity of roles and responsibilities at different levels; develop strategic focus through priority setting and monitoring and evaluation; develop a management development program; and, develop appropriate management systems to ensure effective and efficient support services. These goals are supported by and consistent with the fifth sub-program objective of administrative reform and capacity building.

#### **New roles and responsibilities/capacities and skills**

1. MoH

In addition to having to overcome the reduction in institutional capacity and human resources resulting from years of conflict, the MoH's new roles and responsibilities require new capacities and skills. Specific management and leadership capacities which have been identified by the MoH and its partners include health planning, public health, financial management, leadership, human resources, governance, monitoring and evaluation, HMIS, donor coordination, community-based health care, and others. Most of these were not prominent in the clinically, especially hospital-based, oriented system of the past, especially when the MoH was virtually the sole provider of health services, rather than an overseer.

In addition, achieving an effective decentralized (or de-concentrated) health system will require many of these new management capacities at provincial levels, which were historically required to focus solely on delivering services.

**Summary of Main MoH Technical Assistance Needs by Location**

|                                  | Central                             | Provincial                          | Facility                            |
|----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Health Planning and Organization | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |
| Public Health                    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Financial Management             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |
| Leadership                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |
| Human Resources                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Governance                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |
| Monitoring and Evaluation        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| HMIS                             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Donor coordination,              | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |
| Community-Based Health Care      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Hospital Management              |                                     |                                     | <input checked="" type="checkbox"/> |
| Logistics and Procurement        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

## 2. NGOs

Over the last two decades, NGOs have become the main service providers, although increasingly under the overall guidance of the MoH. While a number of Afghan NGOs, due to their greater access to training and other human resource development activities enabled by their greater access to resources, have relatively greater capacity, technical assistance needs for others are significant.

At present, it is not clear that there is sufficient overall NGO capacity to deliver the BPHS in all areas of the country. Many areas remain underserved, and it is not clear what will happen when the few major Afghan NGOs begin implementation of their large performance-based grants and performance-based partnership agreements. These are likely to place larger demands on existing NGOs than has previously been the case, and concerns have already been raised about whether there is "too much money chasing too little capacity." Therefore, especially if the long-term desired trend is the replacement of international with Afghan NGOs, new NGOs will have to come into existence and current new NGOs will have to increase their capacity drastically.

In addition, NGOs which have been largely accustomed to working relatively on their own in a conflict or post-conflict setting with no or weak institutions, will have to become more able to follow policies, procedures, and protocols set up by the MoH. Improving the quality of

services and increasing the rate of cost recovery are other important areas in which NGOs can and must take a leadership role. Much of the above will require investment in the form of technical assistance.

### ***Strategies for implementation***

#### ***Types of technical assistance***

Technical assistance will be provided through a variety of means, including the following:

- On-site support from International advisors (including Afghan expatriate)
- In-country training, workshops, and meetings
- Overseas conferences, meetings, and study tours

#### ***Principles of technical assistance***

Technical assistance will adhere to the following principles, which have been articulated by the MoH in its “Policy Statement on Technical Assistance for the MoH Through Advisors.” Assistance should:

- Be systematic and integrated, not vertical
- Be appropriate to MoH priorities and needs
- Contribute to MoH overall strategy
- Be timely
- Be monitored and periodically evaluated
- Involve counterparts with clear roles
- Take into consideration the availability of necessary complementary resources

In addition, technical assistance will attempt to be innovative.

#### **Coordination and management of technical assistance**

The MoH will resume responsibility for coordination of technical assistance. In particular, technical assistance will be overseen by the Executive Board, which will regularly evaluate the contribution of advisors, with on-going guidance by the CGHN. As technical assistance moves from the immediate post-conflict phase to longer-term development, donors and technical agencies will increasingly harmonize their inputs.

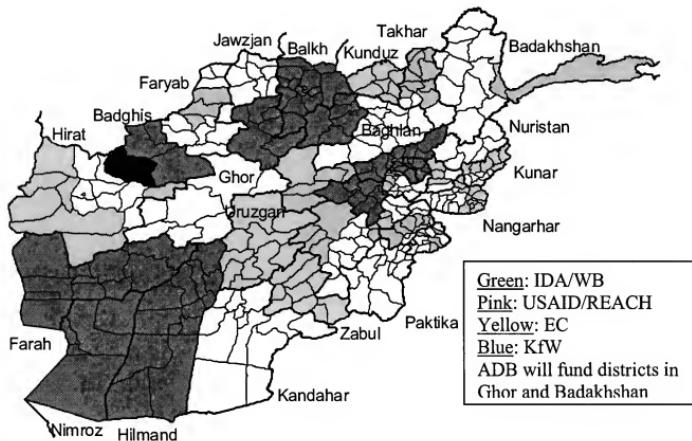
#### **Constraints**

Effective provision of technical assistance faces a number of constraints, including:

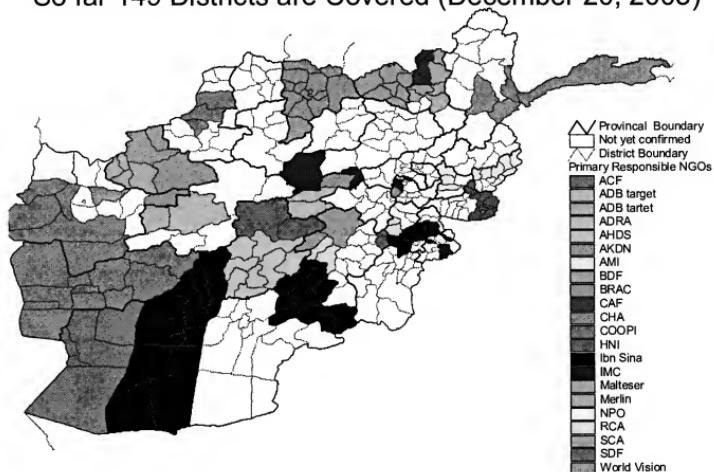
- Limited financial resources, including complementary ones needed to support MoH counterparts.
- The need to get agreement and/or approval from other concerned ministries on certain policy matters (e.g., civil service reform, budgeting and financial management).
- Security, especially in areas outside of Kabul.
- The need to coordinate and/or harmonize the different major donors’ models of service delivery and support, as well as their policy and political agendas.

## Annex 6 Maps

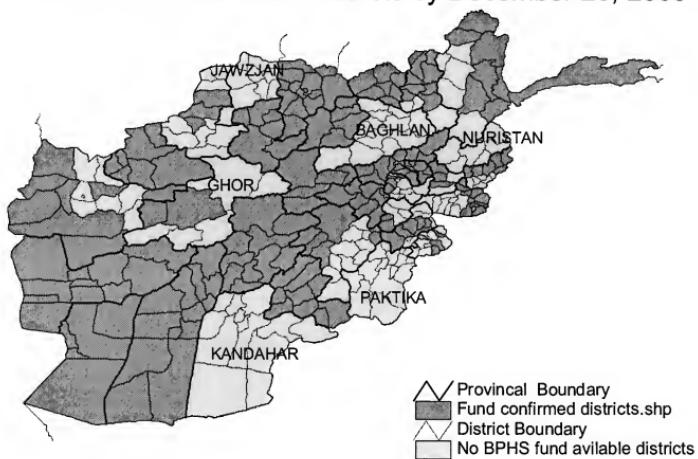
Map1: BPHS funding status by donor as of December 01, 2003.



**Primary Responsible NGOs by Districts**  
So far 149 Districts are Covered (December 20, 2003)



No BPHS fund available districts by December 20, 2003



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